

4.13 TRANSPORTATION/TRAFFIC

This EIR section analyzes the potential for adverse impacts on existing transportation and traffic conditions resulting from implementation of the proposed project. The Initial Study/Notice of Preparation (IS/NOP [Appendix A]) identified the potential for impacts associated with the following: increased number of vehicle trips and traffic congestion; exceeding established levels of service of the county congestion management agency; increased hazards due to design features; parking capacity; and the potential for the proposed project to conflict with adopted policies supporting alternative transportation and emergency access. Impacts associated with changes in air traffic patterns resulting from implementation the proposed project was scoped out as part of the IS/NOP. Data used to prepare this section were taken from the City's General Plan Circulation Element and the Traffic Impact Analysis (TIA) Report prepared for the project site (Appendix H). Full bibliographic entries for all reference materials are provided in Section 4.13.5 (References), at the end of this section.

All comments received in response to the IS/NOP for the proposed project were taken into consideration during preparation of this EIR, and if relevant, have been addressed in this section or others within this document.

4.13.1 Environmental Setting

This section provides an assessment of existing conditions in/around the project study area, including a description of the existing street and highway system, traffic volumes on these facilities, and operating conditions at selected intersections.

■ Regional Highway and Street Network

Freeways

Regional and inter-regional access for the City of Huntington Beach is provided by a system of freeways, and major and local arterials. The San Diego Freeway (I-405) is the major north-south freeway that provides regional access to the City. The project site is bounded by Center Avenue to the north and Gothard Street to the west. Center Avenue extends east and intersects the I-405 southbound ramps. Beach Boulevard, also known as State Route 39 located east of the project site also intersects Center Avenue. Beach Boulevard has been designated as a “Smart Street Corridor” by the Orange County Transportation Authority (OCTA). McFadden Avenue located north of the project is considered a state highway between Gothard Street and Goldenwest Street. Additionally, Gothard Street is considered a primary north-south street extending from the I-405.

Local Access

Arterial roadways in the vicinity of the project site include Gothard Street, Center Avenue and Edinger Avenue. The key local streets serving the project site are described below:

- **Center Avenue** is currently an east-west secondary roadway consisting of a four-lane undivided roadway. An access driveway will be located on Center Avenue.
- **Gothard Street** is currently a north-south four-lane divided roadway provided within a secondary arterial right-of-way section. The City's General Plan Circulation Element classifies Gothard Street as a Major Arterial six-lane divided roadway between Heil Avenue and McFadden Avenue. The actual street classification for this section of Gothard Street is more complicated than most typical roadways in the City and is discussed in greater detail in the following section. Gothard Street will have two access driveways to the project site, and one will be right-in/right-out only due to its close proximity to Center Avenue.
- **Edinger Avenue** is a major east-west six lane divided roadway. The City's General Plan Circulation Element classifies Edinger Avenue between Newland Street and Springdale Street as a major six-lane divided roadway, and to the east of Newland Street, Edinger Avenue becomes a four-lane primary divided roadway.

The City's General Plan Circulation Element has classifications for some roadways that differ from the Orange County Master Plan of Arterial Highways (MPAH). The Arterial Highway Plan in the General Plan Circulation Element is defined according to two sets of specifications. The first is the Circulation Plan of Arterial Streets and Highway (CPAS&H) which is generally consistent with the MPAH. The second is the 2010 Circulation Plan of Arterial Highways (2010 CPAH) which augments the basic CPAS&H roadway classifications in selected areas. When questions of right-of-way arise, it is typically the 2010 CPAH that is used to define the appropriate roadway section. Additionally, the City has established a process by ordinance that defines in more detail the specific dimensions and alignment of roadways through the adoption of an individual Precise Plan of Street Alignment for a given street segment. Typically, the Precise Plan of Street Alignment will take precedence over the 2010 CPAH.

The section of Gothard Street adjacent to the project is an example of where the CPAS&H and the 2010 CPAH have different classifications. The Precise Plan of Street Alignment adopted by the City and the CPAS&H shows the roadway as a four-lane roadway. While CPAS&H shows the street as undivided, the Precise Plan of Street Alignment identifies a divided street section. The 2010 CPAH shows a six-lane Major (six lanes divided) classification. The street is currently built as a four-lane divided roadway with bike lanes within a typical Secondary Arterial right-of-way. This is accomplished by providing minimum (rather than desirable) lane dimensions in all lanes.

Existing Traffic Volumes

The TIA evaluated intersection operations from the following roadways in the vicinity of the project site:

- Goldenwest Street at Bolsa Avenue
- Goldenwest Street at McFadden Avenue
- Gothard Street at McFadden Avenue
- Gothard Street at Center Avenue
- I-405 Southbound Ramps at Center Avenue
- Beach Boulevard at Center Avenue
- Goldenwest Street at Edinger Avenue
- Gothard Street at Edinger Avenue

- Beach Boulevard at Edinger Avenue
- Newland Street at Edinger Avenue
- Gothard Street at Heil Avenue
- Beach Boulevard at Heil Avenue
- Gothard Street at Warner Avenue
- Beach Boulevard at Warner Avenue
- Beach Boulevard at McFadden Avenue
- Beach Boulevard at Bolsa Avenue

Figure 4.13-1 (Existing Circulation System) presents the existing through lanes for study area roadways, and controls at existing intersection analysis locations.

Existing average daily traffic (ADT) on arterial roadways in the study area is shown on Figure 4.13-2 (Study Area Existing ADT Volumes). Arterial roadways in the vicinity of the project site include Gothard Street with 15,000 ADT, Center Avenue with 10,000 ADT and Edinger Avenue with 30,000 ADT. The highest daily traffic volumes in the study area occurs along Beach Boulevard, which carries traffic in excess of 79,000 vehicles per day (vpd) and along Edinger Avenue which carries traffic in excess of 30,000 vpd. Other roadway segments carrying more than 15,000 vpd in the study area include Gothard Street, Goldenwest Street and McFadden Avenue.

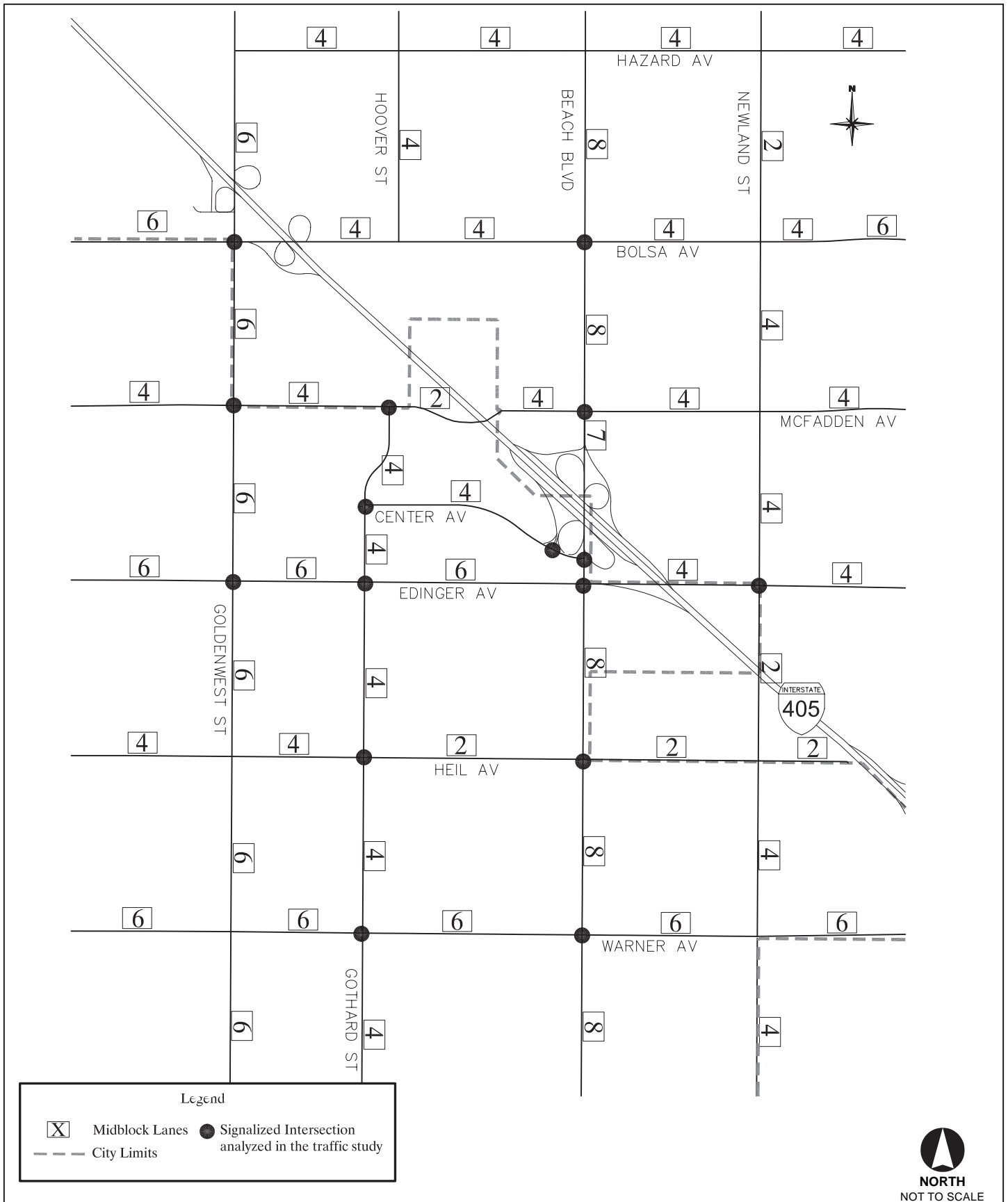
It should be noted that, for the purposes of this analysis, inclusive of existing conditions, performance criteria used for evaluating volumes and capacities on the City street system are based on peak hour intersection volumes. Using peak hour intersection turn movement volumes and the intersection lane geometry, intersection capacity utilization (ICU) values are calculated for each of the AM and PM peak hours. The ICU values represent volume/capacity (V/C) ratios for these time periods, and thereby provide a suitable measure of system performance. For Caltrans intersections, average vehicle delay calculations are also made using the Highway Capacity Manual (HCM) methodology (i.e., both ICU values and average delay are calculated for these intersections). HCM methodology estimates the average total delay for each of the traffic movements and determines the LOS for each movement. The overall average delay is measured in seconds per vehicle, and LOS is then calculated for the entire intersection both ICU values and average delay are calculated for these intersections.

Traffic levels of service are designated “A” through “F”, with LOS A representing free flow conditions and LOS “F” representing severe traffic conditions. Acceptable LOS is LOS “D” (ICU not to exceed .90) as defined by City of Huntington Beach Traffic Study Guidelines (1996), whereas the performance standard for Orange County Congestion Management Program (CMP) Intersections is LOS E, (ICU not to exceed 1.0). There are two CMP intersections located in the study area: Beach Boulevard at Edinger Avenue, and Beach Boulevard at Warner Avenue. Although LOS E is acceptable for CMP purposes at these locations, the City performance standard of LOS D is typically used in traffic analysis application.

In terms of freeway interchange ramps, the analysis is based on peak hour V/C ratios, with capacity being a function of the particular operating characteristics of each ramp. LOS “E” (peak hour V/C less than or equal to 1.00) is an acceptable level of service for freeway ramps.

Figure 4.13-3 (Existing AM Peak Hour Volumes) depicts the existing AM peak hour traffic volumes and Figure 4.13-4 (Existing PM Peak Hour Volumes) depicts the existing PM peak hour traffic volumes. The results of the existing intersection analysis are summarized in Table 4.13-1 (Existing Level of Service Summary) which includes the existing level of service summary for both ICU and HCM methodologies.

Table 4.13-1 Existing Level of Service Summary				
Intersection Capacity Utilization (ICU)				
Location	AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS
Goldenwest St. at Bolsa Ave.	.64	B	.86	D
Goldenwest St. at McFadden Ave.	.68	B	.72	C
Gothard St. at McFadden Ave.	.48	A	.51	A
Gothard St. at Center Ave.	.28	A	.47	A
I-405 SB Ramps at Center Ave.	.40	A	.75	C
Beach Boulevard at Center Ave.	.67	B	.68	B
Goldenwest St. at Edinger Ave.	.62	B	.60	A
Gothard Ave. at Edinger Ave.	.47	A	.57	A
Beach Blvd at Edinger Ave.	.71	C	.88	D
Newland St. at Edinger Ave.	.71	C	.62	B
Gothard St. at Heil Ave.	.56	A	.62	B
Beach Blvd. at Heil Ave.	.78	C	.80	C
Gothard St. at Warner Ave.	.56	A	.77	C
Beach Blvd. at Warner Ave.	.69	B	.89	D
Beach Blvd. at McFadden Ave.	.78	C	.81	D
Beach Blvd at Bolsa Ave.	.81	D	.79	C
Highway Capacity Manual (HCM) Delay (Caltrans Intersections)				
Location	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
I-405 SB Ramps at Center Ave.	30.9	C	35.0	C
Beach Blvd. at Center Ave.	9.7	A	18.5	B
Beach Blvd at Edinger Ave.	58.0	E	57.7	E
Beach Blvd. at Heil Ave.	22.3	C	15.9	B
Beach Blvd. at Warner Ave.	50.0	D	42.1	D
Beach Blvd. at McFadden Ave.	33.6	C	31.5	C
Beach Blvd at Bolsa Ave.	38.7	D	32.3	C
SOURCE: Austin-Foust, Inc., <i>City of Huntington Beach The Ripcurl Traffic Analysis</i> . July 2008. Table 2-1.				

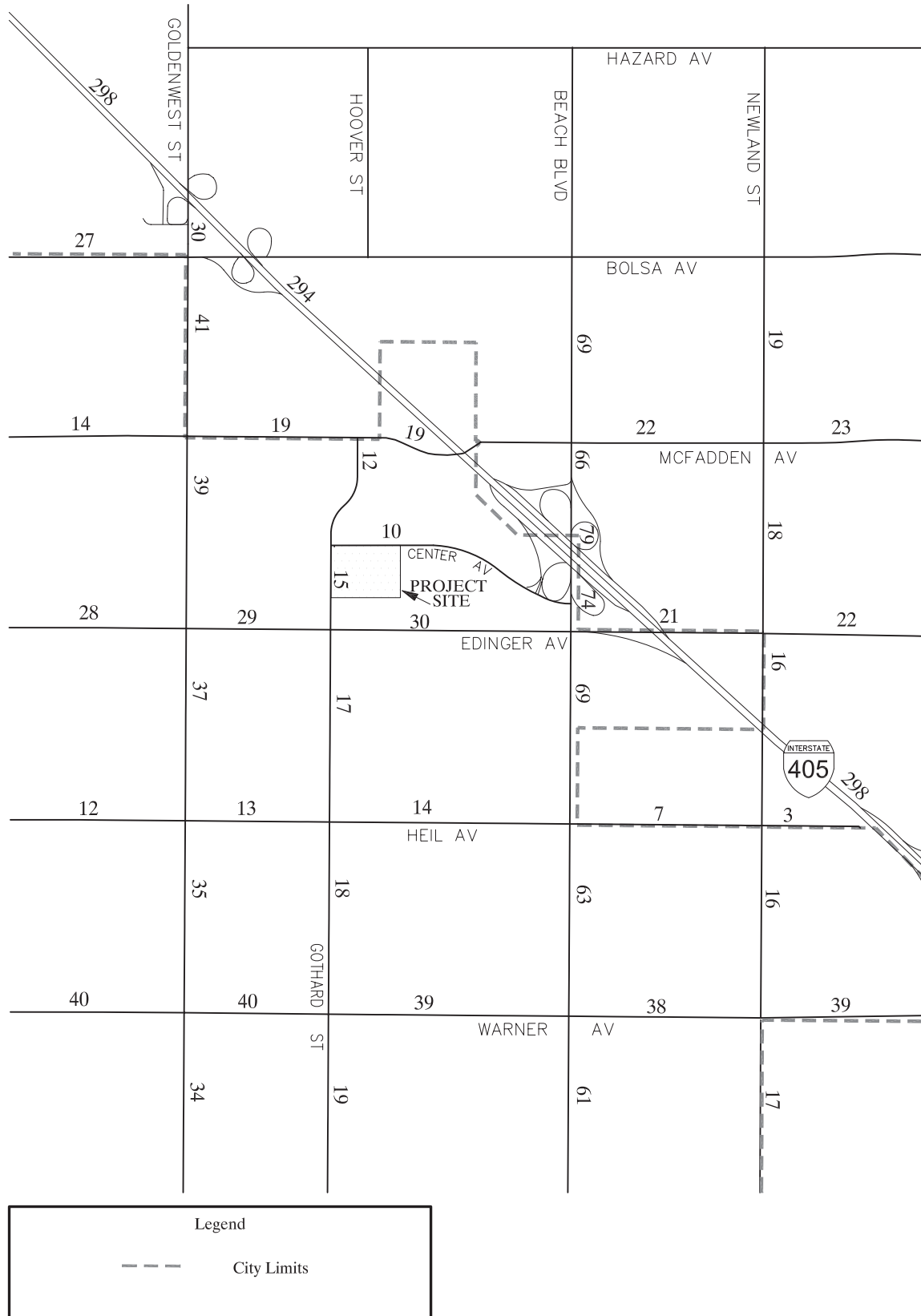


Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-1
Existing Circulation System

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The Ripcurl



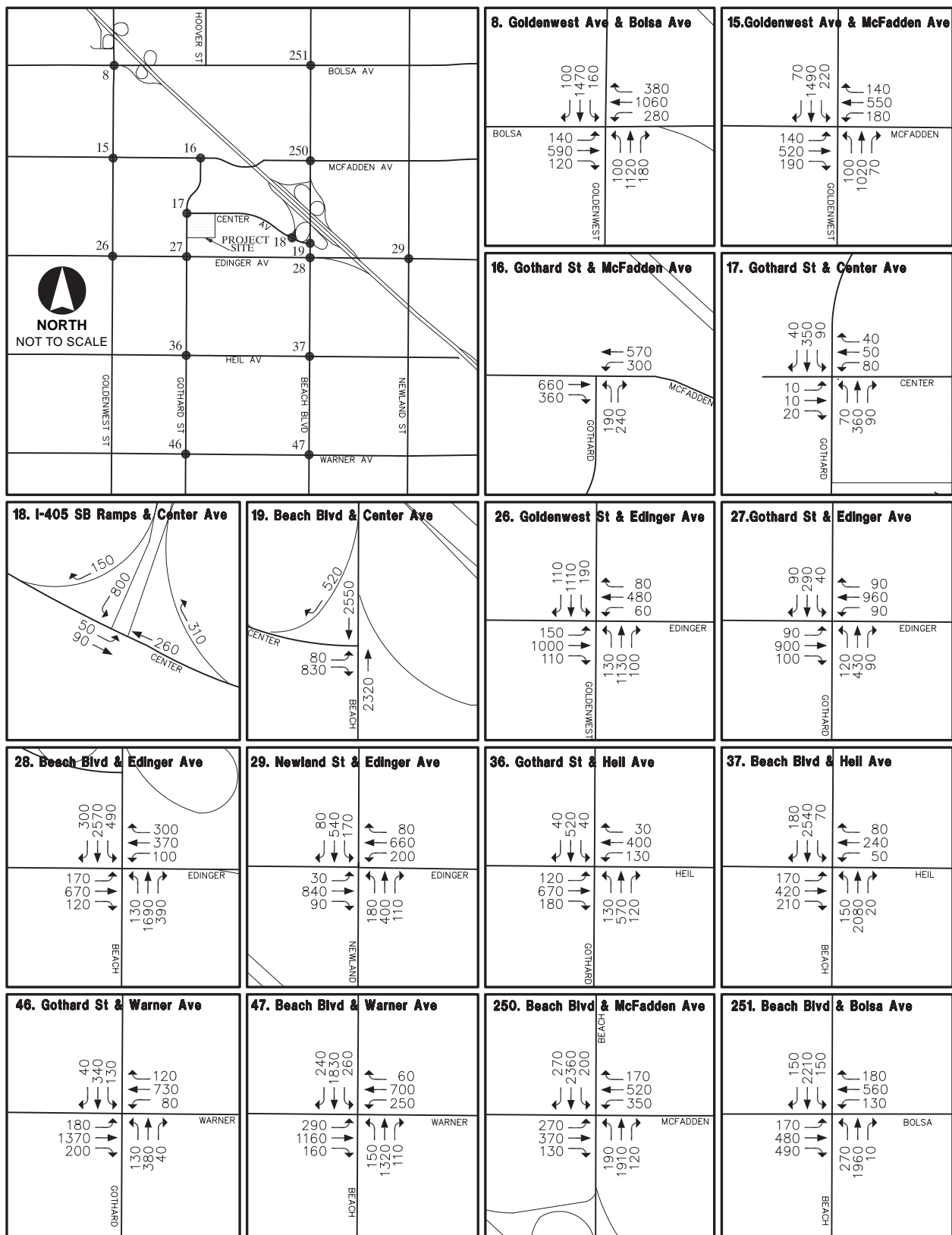
Source: Austin-Foust Associates, Inc., 2008.



FIGURE 4.13-2
Existing Study Area ADT Volumes

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The Ripcurl



Source: Austin-Foust Associates, Inc., 2008.



FIGURE 4.13-3
Existing AM Peak Hour Volumes

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The Ripcurl

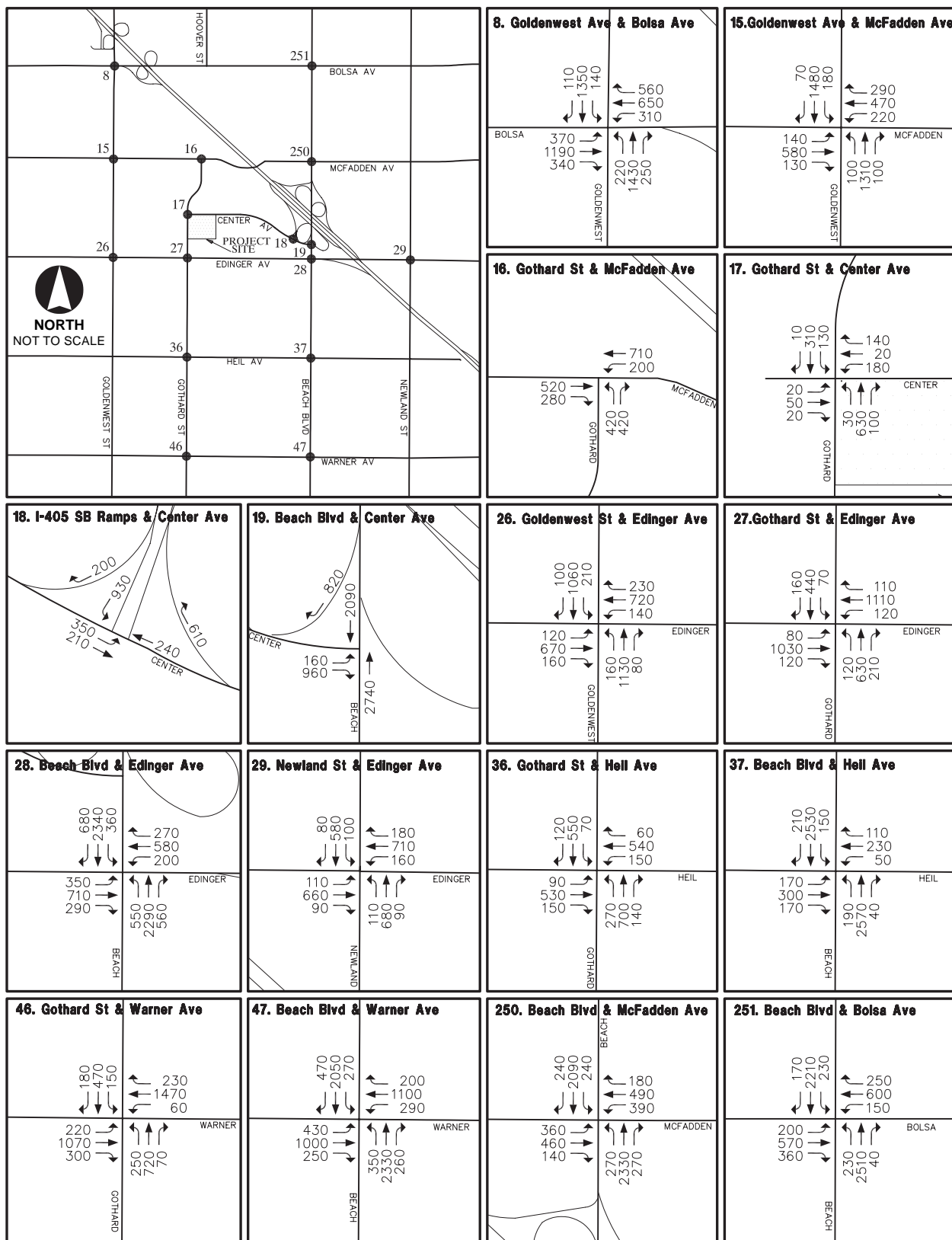


FIGURE 4.13-4
Existing PM Peak Hour Volumes

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The Ripcurl

Table 4.13-1 shows all intersections to be operating at LOS “D” or better with the exception of Beach Boulevard at Edinger Avenue during the AM and PM peak hours. While the theoretical ICU indicates LOS “D”, the operational LOS is “E” as indicated by the HCM results. This is due to eastbound and northbound lane utilization being less than optimum. The eastbound traffic is concentrated in the right lane in preparation for accessing the I-405 southbound freeway ramp. The northbound traffic merges from four lanes to three through lanes just prior to the intersection (the fourth lane becomes a right turn lane). This merge plus local driveway traffic weaving against traffic in the right turn lane causes flow rates to deteriorate such that queuing occurs at peak times.

Existing conditions on the freeway ramps that would be affected by the proposed project are summarized in Table 4.13-2 (Existing Freeway Ramp V/C Summary). The I-405 northbound loop ramp from Beach Boulevard exceeds the LOS “E” threshold ($V/C > 1.0$) in both the AM and PM peak hours.

Table 4.13-2 Existing Freeway Ramp V/C Summary						
Location	AM Peak Hour			PM Peak Hour		
	Capacity	Volume	V/C	Capacity	Volume	V/C
I-405/Beach Blvd NB loop on-ramp (from NB Beach Blvd)	900	1240	1.38	900	1,510	1.68
I-405/Beach Blvd NB loop off-ramp (to SB Beach Blvd)	1,200	690	0.58	1,200	880	0.73
I-405/Beach Blvd SB on-ramp at Center Ave	1,800	360	0.20	1,800	960	0.53
I-405/Beach Blvd SB off-ramp at Center Ave	1,500	950	0.63	1,500	1,130	0.75
I-405/Edinger Ave SB direct on-ramp	1,080	570	0.53	1,080	570	0.53

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 2-2.

Future Conditions

MPAH classifies the arterial streets within the study area circulation system as follows: Edinger Avenue and Goldenwest Street are classified as Primary streets (four-lane, divided roadway, accommodate 20,000 to 30,000 ADT); Warner Avenue and Bolsa Avenue are classified as Major streets (six-lane divide roadway, accommodates 30,000 to 45,000 ADT); and Beach Boulevard have been classified as a Smart street (eight-lanes, uses traffic control methods to maximize capacity). All other streets within the study area circulation system have been classified as Secondary Streets (four-lane undivided, accommodates 10,000 to 20,000 ADT). Study area roadway segments not currently built to their full MPAH standard are listed in Table 4.13-3 (Roadway Future Conditions).

Table 4.13-3 Roadway Future Conditions			
Roadway	Segment	MPAH	Existing
McFadden Ave	Goldenwest St to Beach Blvd	4-lane secondary arterial	2 lane roadway over I-405
Gothard St	Hoover St to McFadden Ave	4-lane secondary arterial	Not built
Heil Ave	Gothard St to Newland Ave	4-lane secondary arterial	2 lane roadway

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Page 2-8.

Neither McFadden Avenue nor Gothard Street has current funding commitments for constructing the roadways to MPAH standards (widening in the case of McFadden Avenue and construction in the case of Gothard Street). The funding for the widening of Heil Avenue from Gothard Street to Beach Boulevard has been obtained and is considered part of the committed roadway system. As identified in Table 3-4 (Cumulative Projects), construction of the Heil Avenue street improvements is anticipated to begin Fall 2008. Additionally, improvements at the intersection of Beach Boulevard and Edinger Avenue would include a second westbound turn lane would also be considered part of the committed roadway system.

Transit Service

The OCTA transit center is located immediately north of the project site and provides a convenient location for residential trips to be made by transit. The Union Pacific Railroad right of way which borders the eastside of the project site currently serves goods movement on an irregular basis. While interest has been expressed in future potential transit uses, no current plans have been formulated, and no studies are currently being carried out to assess the feasibility of this type of use.⁵⁷

4.13.2 Regulatory Framework

■ Federal

There are no federal transportation regulations pertinent to the proposed project.

■ State

Statewide Transportation Improvement Program (STIP)

The California Department of Transportation (Caltrans) administers transportation programming. Transportation programming is the public decision making process which sets priorities and funds projects envisioned in long-range transportation plans. It commits expected revenues over a multi-year period to transportation projects. The STIP is a multi-year capital improvement program of transportation projects on and off the State Highway System, funded with revenues from the State Highway Account and other funding sources.

■ Regional

Regional Comprehensive Plan and Guide

The SCAG, which is the designated Metropolitan Planning Organization for six Southern California counties (Ventura, Orange, San Bernardino, Riverside, Imperial, and Los Angeles), is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The SCAG has prepared the Regional Comprehensive Plan and Guide (RCPG) in conjunction with its

⁵⁷ *City of Huntington Beach The Ripcurl Traffic Analysis*. Austin-Foust, Inc. July 2008. pg 5-3.

constituent members and other regional planning agencies. The RCPG is intended to serve as a framework to guide decision-making with respect to the growth and changes that can be anticipated in the region through the year 2015. The RCPG consists of five core chapters that contain goals, policies, implementation strategies, and technical data that support three overarching objectives for the region, including (1) improving the standard of living for all, (2) improving the quality of life for all, and (3) enhancing equity and access to government. Local governments are required to use the RCPG as the basis for their own plans and are required to discuss the consistency of projects of regional significance with the RCPG.

Orange County Congestion Management Plan

The CMP requires that a TIA be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System (HS). Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The CMPHS includes specific roadways, which include State Highways and Super Streets, which are now known as Smart Streets, and CMP arterial monitoring locations/intersections. There are two CMP intersections that were evaluated within the traffic study area for the proposed project, which include:

- Beach Boulevard at Edinger Avenue
- Beach Boulevard at Warner Avenue

Therefore, the CMP TIA requirements relate to the potential impacts only on the specified CMPHS Intersections.

Orange County Growth Management Plan

In August 1988, Orange County adopted a Growth Management Plan, which presents a conceptual framework for coordinating traffic facilities and public facilities and services with new development. The Growth Management Plan also spawned several plans and programs, including the Development Monitoring Program, which evaluates the extent of new development and compliance with phasing requirements, and the Facilities Implementation Plans, which evaluate public facility needs and propose financing mechanisms.

The most comprehensive legislation affecting growth management is Measure M, approved by the County voters in November, 1990, and re-approved in 2006. The measure requires each jurisdiction in the County to adopt a Growth Management Element with specific contents and guidelines.

■ Local

General Plan Circulation Element

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| Goal CE 2 | Provide a circulation system which supports existing, approved and planned land uses throughout the City while maintaining a desired level of service on all streets and at all intersections. |
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Objective CE 2.1 Comply with City’s performance standards for acceptable levels of service.

Policy CE 2.1.1 Maintain a city-wide level of service (LOS) not to exceed LOS “D” for intersections during the peak hours.

Objective CE 2.3 Ensure that the location, intensity and timing of new development is consistent with the provision of adequate transportation infrastructure and standards as defined in the Land Use Element.

Policy CE 2.3.1 Require development projects to mitigate off-site traffic impacts and pedestrian, bicycle, and vehicular conflicts to the maximum extent feasible.

Policy CE 2.3.2 Limit driveway access points and require adequate driveway widths onto arterial roadways and require driveways be located to ensure the smooth and efficient flow of vehicles, bicycles, and pedestrians.

Policy CE 2.3.4 Require that new development mitigate its impact on City streets, including but not limited to, pedestrian, bicycle, and vehicular conflicts, to maintain adequate levels of service.

Objective CE 3.2 Encourage new development that promotes and expands the use of transit services.

Policy CE 3.2.1 Require developers to include transit facilities, such as park-and-ride sites, bus benches, shelters, pads or turn-outs in their development plans, where feasible as specified in the City’s TDM ordinance.

Goal CE 4 Encourage and develop a transportation demand management (TDM) system to assist in mitigating traffic impacts and in maintaining a desired level of service on the circulation system.

Objective CE 4.1 Pursue transportation management strategies that can maximize vehicle occupancy, minimize average trip length, and reduce the number of vehicle trips.

Policy CE 4.1.3 Encourage the use of multiple-occupancy vehicle programs for shopping and other uses to reduce mid-day traffic.

- Goal CE 5** Provide sufficient, well-designed, and convenient on and off-street parking facilities throughout the City.
- Objective CE 5.1** Balance the supply with the demand for parking.
- Policy CE 5.1.2** Provide safe and convenient parking that has minimal impacts on the natural environment, the community image, and the quality of life.
- Goal CE 6** Provide a city-wide system of efficient and attractive pedestrian, equestrian, and waterway facilities for commuter, school, and recreational use.
- Objective CE 6.1** Promote the safety of bicyclists and pedestrians by adhering to Caltrans and City-wide standards.
- Policy CE 6.1.6** Maintain existing pedestrian facilities and require new development to provide pedestrian walkways and bicycle routes between developments, schools, and public facilities.
- Policy CE 6.1.7** Require new development to provide accessible facilities to the elderly and disabled
- Policy CE 6.1.10** Implement appropriate traffic devices and operational programs throughout the community to ensure that conflicts between pedestrians, bicycles, and vehicles are minimized and safety enhanced.

General Plan Growth Management Element

- Goal 3** Provide a circulation system that meets the service demands of planned development and minimizes congestion.
- Objective 3.1** Establish minimum standards for traffic circulation and provide means to ensure that those standards are met and maintained.
- Policy 3.1.2** Maintain a citywide level of service (LOS) for links not to exceed LOS “C” for daily traffic with the exception of Pacific Coast Highway, south of Brookhurst.
- Policy 3.1.3** Maintain a citywide level of service (LOS) not to exceed LOS “D” for intersections during peak hours.
- Policy 3.1.8** Promote traffic reduction strategies including alternate travel modes, alternate

work hours, a decrease of vehicle trips throughout the city.

Consistency Analysis

The proposed project would be located on the southeast corner of Center Avenue and Gothard Street. Alternative modes of transportation are accessible for both patrons of the commercial uses within the project, as well residents of the development. The OCTA transit center is located immediately north of the project site, across Center Avenue, and provides a convenient location for residential trips to be made by transit. As Golden West College is situated directly west of Gothard Street, it is anticipated that students would walk or use other non-private vehicle modes (i.e., bicycle and transit) to support the proposed commercial uses. Additionally, the Bella Terra Regional Shopping Center is adjacent to the project site (east), separated by the Union Pacific Railroad right-of-way, and within walking distance of the project site (0.2 mile). The walkability of the surrounding area, as well as the easy access to transit facilities would promote objectives relating to traffic reduction and increase reliance on alternative methods of transportation included in the Circulation Element and the Growth Management Element.

As noted below in Impacts 4.13-1 and 4.13-2, all study intersections would operate at LOS D or better with the exception of three deficient intersections, none of which would be significantly impacted by the project. Additionally, I-405 southbound ramps at Center Avenue would be impacted in the long range by the proposed project; mitigation has been included in this EIR to reduce the impact to a less than significant level. Therefore, the proposed project would meet acceptable minimum standards as stated in Policies 3.1.2 and 3.1.3 and would not conflict with these policies.

Additionally, access to the project site would be provided via three access points. Two driveways would be located on Gothard Street, one of which would be right-in/right-out access due to its close proximity to Center Avenue, and a third access driveway would be located on Center Avenue. Peak hour delays for existing and entering vehicles would operate at acceptable levels and would therefore not conflict with Policy 2.3.2. As such, the proposed project would be considered consistent with the Goals and Policies of the Huntington Beach General Plan.

4.13.3 Project Impacts and Mitigation

■ Analytic Method

Intersection Analysis

As stated previously, ICU analysis has been performed at all study area intersections. ICU values are used to determine levels of service at study area intersection locations and provide a means to quantitatively estimate incremental traffic impacts. To calculate the ICU value for an intersection, the volume of traffic using the intersection is compared with the capacity of the intersection. The ICU is usually expressed as a decimal percent (e.g., 0.86). The decimal percent represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity. The ICU-based LOS is defined below on Table 4.13-4 (ICU Level of Service).

Table 4.13-4 ICU Level of Service

<i>Level of Service</i>	<i>Intersection Capacity Utilization (ICU) Value</i>
A	0–0.60
B	0.61–0.70
C	0.71–0.80
D	0.81–0.90
E	0.91–1.00
F	> 1.00

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 1-1.

For Caltrans intersections (Beach Boulevard), the delay-based methodology contained in the HCM, is also used. This methodology estimates the average total delay for each of the traffic movements and determines the LOS for each movement. The overall average delay is measured in seconds per vehicle, and LOS is then calculated for the entire intersection. The HCM-based LOS is defined below in Table 4.13-5 (Definitions of Levels of Service for Intersections).

Table 4.13-5 Definitions of Levels of Service for Intersections

<i>Level of Service</i>	<i>Control Delay (in sec/vehicle)</i>	
	<i>Signalized Intersection*</i>	<i>Unsignalized Intersection</i>
A	0–10	0–10
B	10.1–20	10.1–15
C	20.1–35	15.1–25
D	35.1–55	25.1–35
E	55.1–80	35.1–50
F	80.1 or more	50.1 or more

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 1-1.

The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS “A” represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS “B” is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS “C” is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes slightly affected by interactions with others in the traffic stream.
- LOS “D” represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.

- LOS “E” represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS “F” is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. As stated previously, the City of Huntington Beach Traffic Study Guidelines (1996) considers LOS D acceptable for intersections located within the City limits. Additionally, an intersection is impacted if the LOS is “E” or LOS “F” and the ICU value changes by 0.01 or more.

■ Project Traffic

The traffic-related to the project has been calculated in accordance with the following accepted procedural steps:

- Trip Generation
- Trip Distribution

These steps are described in detail below:

Project Trip Generation

Trip generation represents the amount of traffic attracted to and produced by a development. Basic trip generation rates for the proposed project’s land uses were taken from the Institute of Transportation Engineers’ (ITE) “Trip Generation” manual and then adjusted for local “capture trips” (walk trips to and from adjacent areas). The local trip capture is based on trip purpose and uses standard traffic modeling relationships to categorize the residential trips by purpose and then apply local capture proportions to each trip purpose. The residential internal and local trip capture percentages are included in Table 4.13-6 (Residential Internal/Local Trip Capture). It should be noted that the trip generation used for this project is conservative in that it assumes commercial trip generation rates rather than residential trip generation rates for the live/work space.

Table 4.13-6 Residential Internal/Local Trip Capture

<i>Trip Purpose</i>	<i>AM Peak Hour Percent</i>	<i>PM Peak Hour Percent</i>	<i>ADT Percent</i>	<i>Capture Rate</i>	<i>AM Capture</i>	<i>PM Capture</i>	<i>ADT Capture</i>
Home-Based Work and School	70%	57%	44%	10%	7.0%	5.7%	4.4%
Home-Based Shopping	2.0%	11%	13%	50%	1.0%	5.5%	6.5%
Home-Based Social/Recreation	6.0%	12%	15%	40%	2.4%	4.8%	6.0%
Home-Based Other	22%	20%	28%	5.0%	1.1%	1.0%	1.4%
Total	100%	100%	100%	--	11.5%	17.0%	18.3%

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Page 3-3.

The percentages by trip purpose are taken from the Huntington Beach Traffic Model (HBTM), and the capture rates are estimated as realistic interactions with a center the size of Bella Terra Regional Shopping Center, and the surrounding commercial and educational uses. The combined internal and local capture was also verified by examining trip interactions within the immediate area as estimated by the traffic model.

For the commercial component of the proposed project, local trip capture (i.e., non-vehicular trips) would also occur, particularly from the adjacent college. For analysis purposes, it has been assumed that 50 percent of these trips will be local capture or pass-by and therefore not part of the project vehicle trip generation.

The project trip generation results are summarized in Table 4.13-7 (Project Trip Generation Summary). As shown, the proposed project would generate approximately 1,666 new daily trips, of which 141 will be in the AM peak hour and 144 in the PM peak hour. Because of the peak hour directionality differences between the existing office use and the new residential land use, the AM peak hour inbound volume actually shows a reduction compared to existing AM inbound trips generated by the site.

Table 4.13-7 Project Trip Generation Summary								
Project Description	Amount	Peak Hour						ADT
		AM			PM			
		In	Out	Total	In	Out	Total	
Commercial*	10,000 sf	3	2	5	9	10	19	215
Residential**	440 DU	39	160	199	146	81	227	2,425
Total Project		42	162	204	155	91	246	2,640
Existing Commercial	30,000 sf	10	6	16	27	30	57	644
Existing Office	30,000 sf	41	6	47	8	37	45	330
Net Trip Generation Increase		(9)	150	141	120	24	144	1,666

SOURCE: Source: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 3-1.

Daily rates based on Institute of Transportation Engineers (ITE) peak to daily relationships for Community Centers

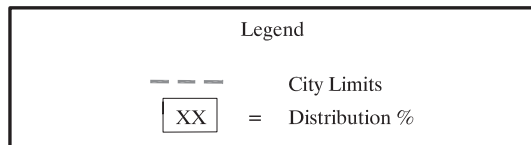
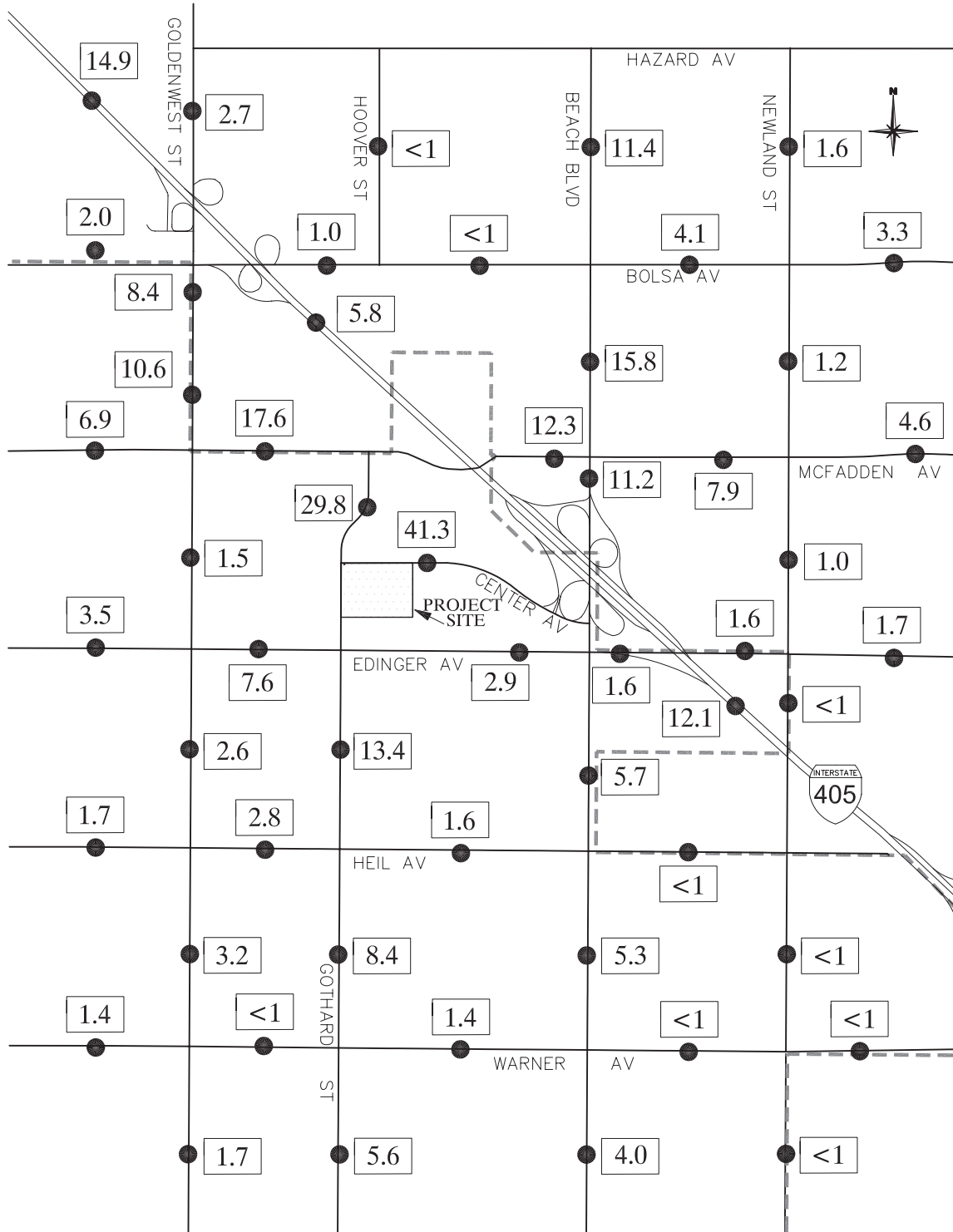
ADT = average daily traffic; DU = dwelling unit; sf = square feet

*Trips based on ITE (7th Edition) General Commercial (820) rates with 50 percent reduction for local capture.

** Trips based on ITE (7th Edition) Apartment (220) rates with local capture of 11 percent for the AM peak hour, 17 percent for PM peak hour and 18 percent for ADT.

Project Trip Distribution

The trip distribution and assignment process represents the directional orientation of traffic to and from the project site. Trip distribution is influenced by existing travel patterns, the geographic location of the site, the location of residential areas, commercial and recreational opportunities, and the proximity of the regional freeway system. The geographic distribution of trips in the study area to and from the project site was estimated using regional distribution patterns derived from the HBTM. The resulting project trip distribution pattern is illustrated in Figure 4.13-5 (Project Trip Distribution); the pattern is based on the distribution of daily trips generated by the project as assigned to the study area street system. The



Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-5
Project Trip Distribution

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The Ripcurl

distribution percentages illustrated in the figure are representative of the average daily traffic (ADT) volumes, and the directional distribution used for calculating peak hour project trip differ slightly on certain links compared to the ADT distribution. Project ADT trips on the study area circulation system are illustrated in Figure 4.13-6 (ADT Volumes Project Only) and the project peak hour trips at the study area intersections are shown for AM and PM peak hour conditions in Figure 4.13-7 (AM Peak Hour Volumes) and Figure 4.13-8 (PM Peak Hour Volumes). These project traffic volumes are used to identify short-range and long-range project impacts.

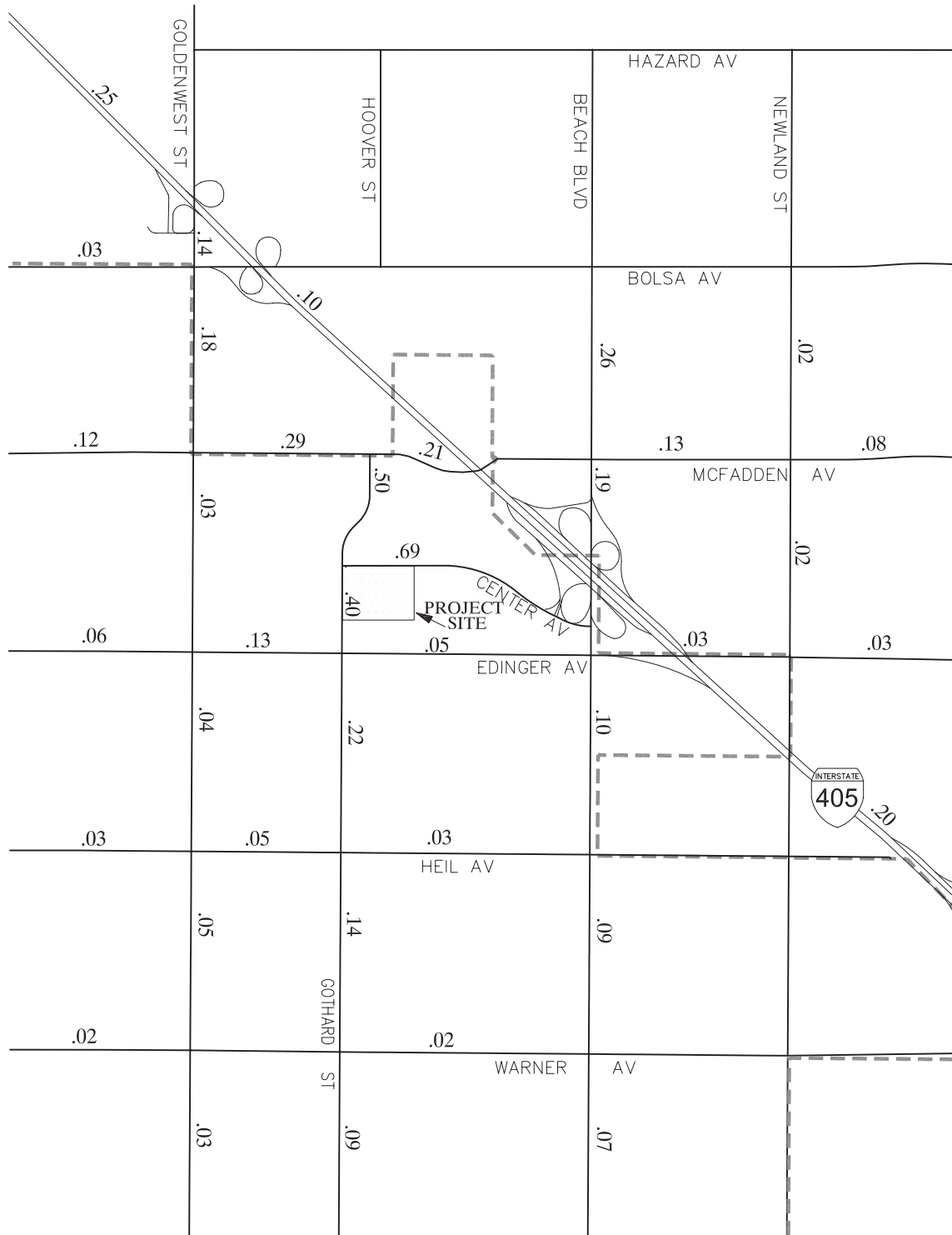
■ Short-Range (2014) Conditions

Year 2014 Without Project conditions are established by interpolating between existing and long-range volumes. This accounts for ambient growth, including development anticipated to occur in this short-range timeframe. The short-range analysis period for the proposed project is referred to as 2014, which is approximately one year after anticipated project occupancy. This time frame thereby fully accounts for project buildout and also addresses the Growth Management Plan (GMP) and the CMP needs for a short-range (five- to seven-year) time frame. Currently committed roadway improvements at the intersections at Heil Avenue, Beach Boulevard at Heil Avenue, and Beach Boulevard at Edinger Avenue, have been assumed in both the short-range and long-range analysis.

AM and PM peak hour intersection volumes for Year 2014 Without Project conditions are shown on Figure 4.13-9 (Year 2014 Without Project AM Peak Hour Volumes) and Figure 4.13-10 (Year 2014 Without Project PM Peak Hour Volumes). Year 2014 With Project ADT volumes are shown on Figure 4.13-11 (2014 With-Project Study Area ADT Volumes). The highest study area volumes occur on Beach Boulevard and Edinger Avenue., and Year 2014 With Project AM and PM peak hour intersection volumes are show on Figure 4.13-12 (2014 With Project AM Peak Hours) and Figure 4.13-13 (2014 With Project PM Peak Hours). A summary of Year 2014 conditions with and without the proposed project is shown in Table 4.13-8 (Year 2014 ICU Summary). As identified, three study intersections would operate at unacceptable LOS.

■ Long-Range (2030) Conditions

Year 2030 forecasts were produced using the HBTM. This is a subarea model derived from the Orange County Transportation Analysis Model (OCTAM), following the consistency guidelines established by OCTA. Future committed roadway improvements have been assumed in the long-range analysis. Year 2030 Without Project conditions represent ADT volumes under build-out of the City's General Plan and regional growth projections from OCTA. For the project site, the existing land uses are assumed as represented under the current zoning designations. Year 2030 Without Project AM and PM peak hour intersection volumes are illustrated in Figure 4.13-14 (2030 Without Project AM Peak Hour Volumes), and Figure 4.13-15 (2030 Without Project PM Peak Hour Volumes). "Year 2030 With Project" ADT volumes are shown in Figure 4.13-16 (2030 With Project Study Area ADT Volumes). "Year 2030 With project" AM and PM peak hour intersection volumes, as shown in Figure 4.13-17 (2030 With Project AM Peak Hour Volumes) and Figure 4.13-18 (2030 With Project PM Peak Hour Volumes), were derived



Legend

X.XX Project ADT (000s)

Less than .01 not shown



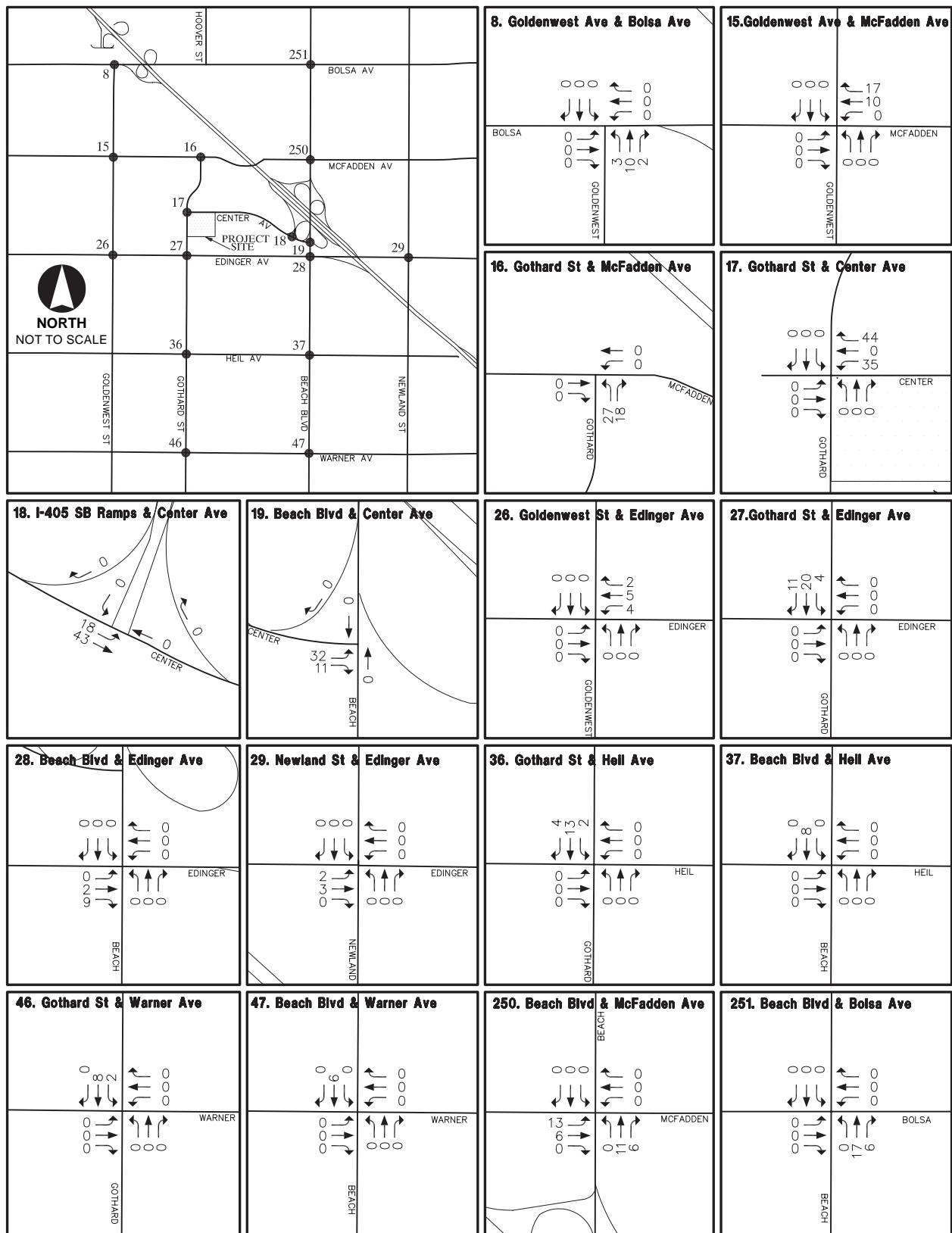
Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-6
ADT Volumes Project Only

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The Ripcurl





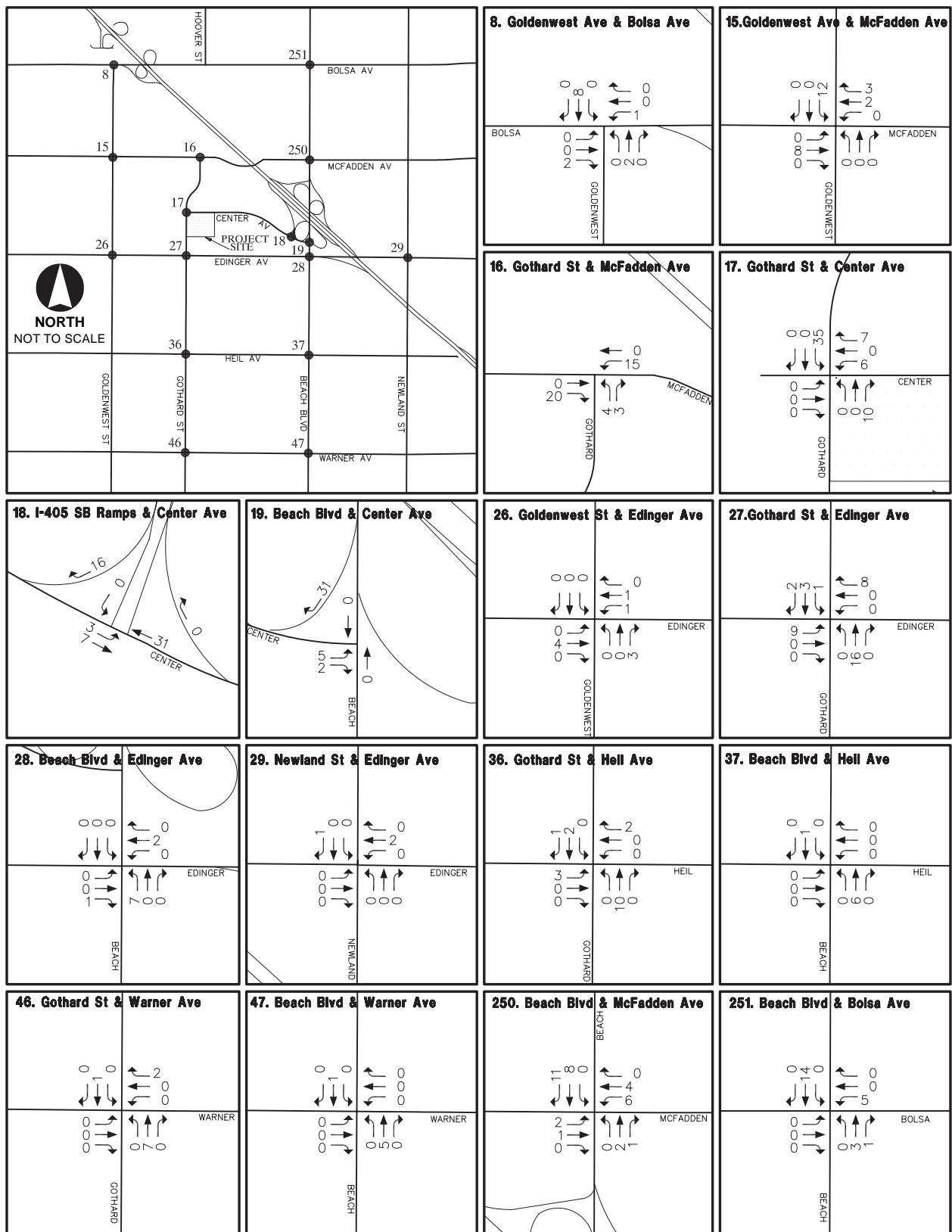
Source: Austin-Foust Associates, Inc., 2008.



FIGURE 4.13-7
AM Peak Hour Volumes

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The Ripcurl



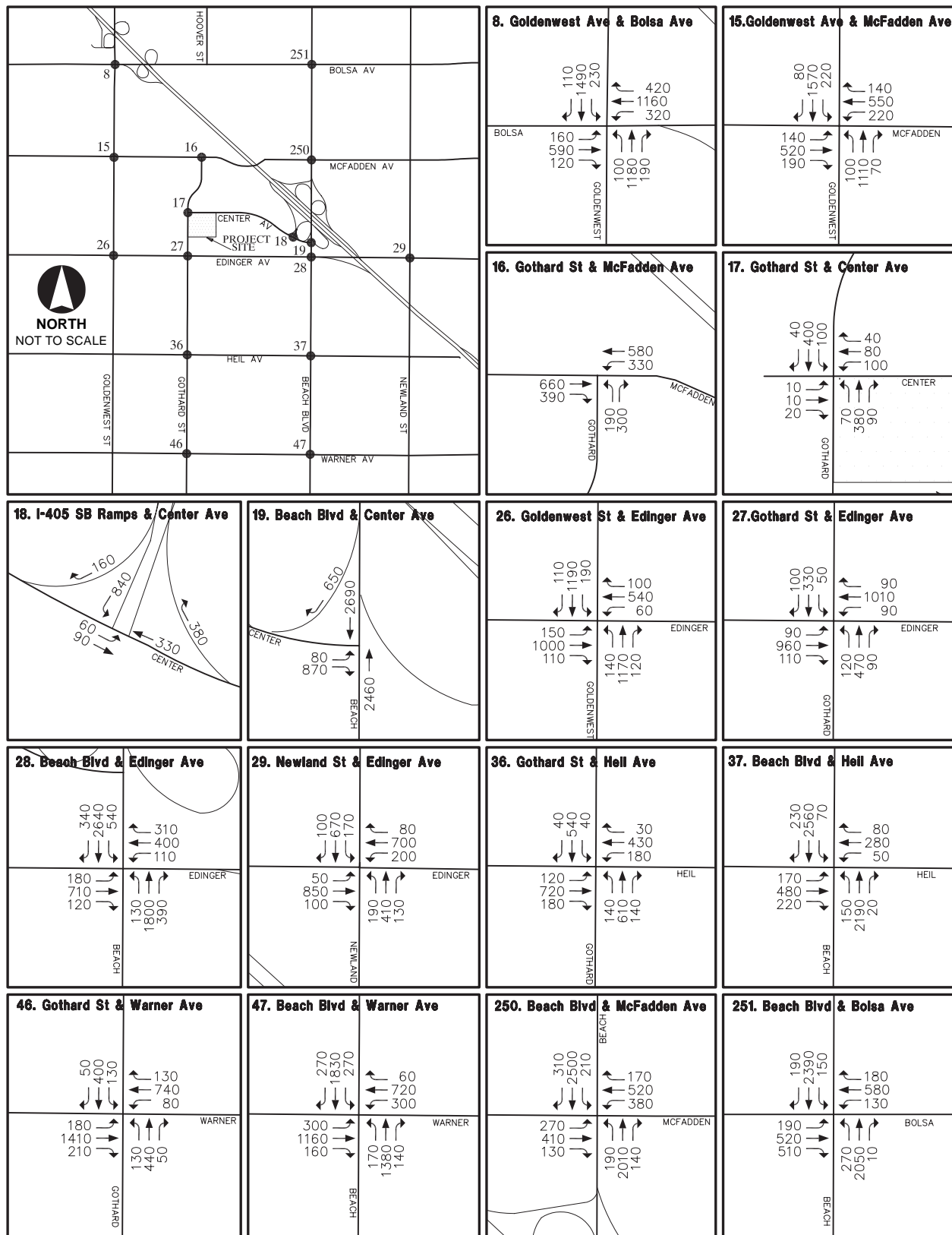
Source: Austin-Foust Associates, Inc., 2008.



FIGURE 4.13-8
PM Peak Hour Volumes

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The Ripcurl

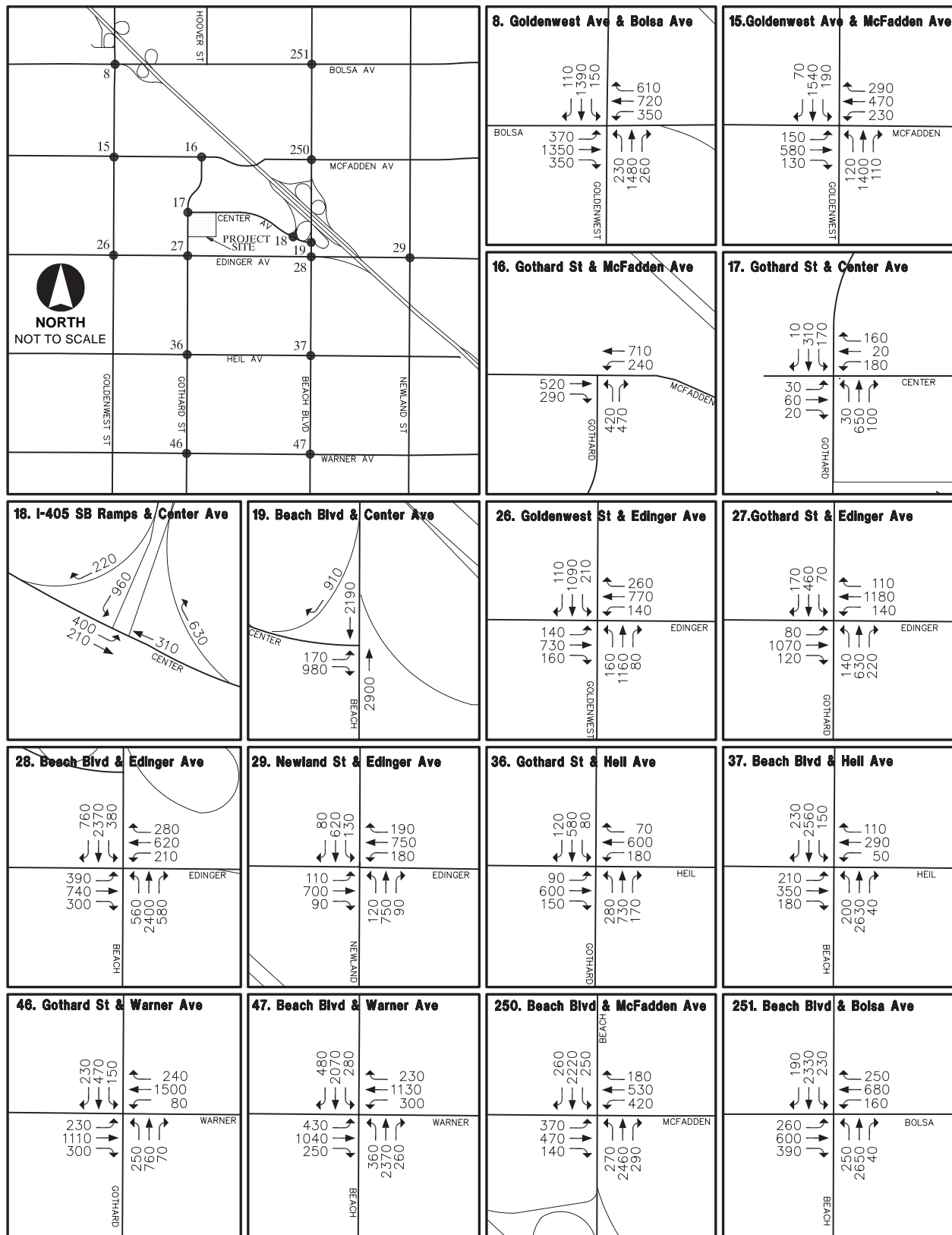


Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-9
Year 2014 Without Project AM Peak Hour Volumes

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The Ripcurl

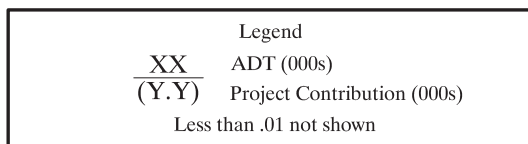
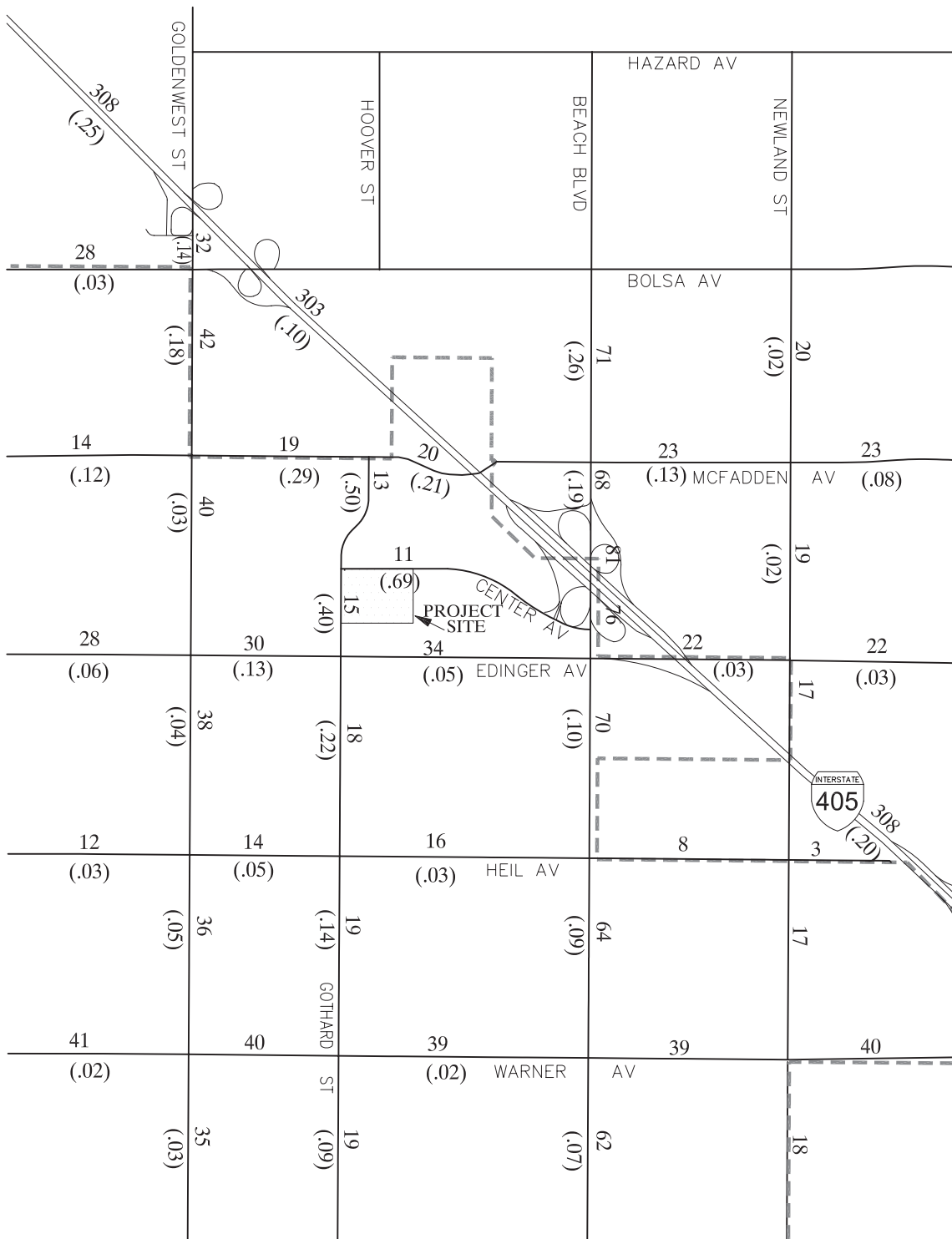


Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-10
Year 2014 Without Project PM Peak Hour Volumes

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The Ripcurl



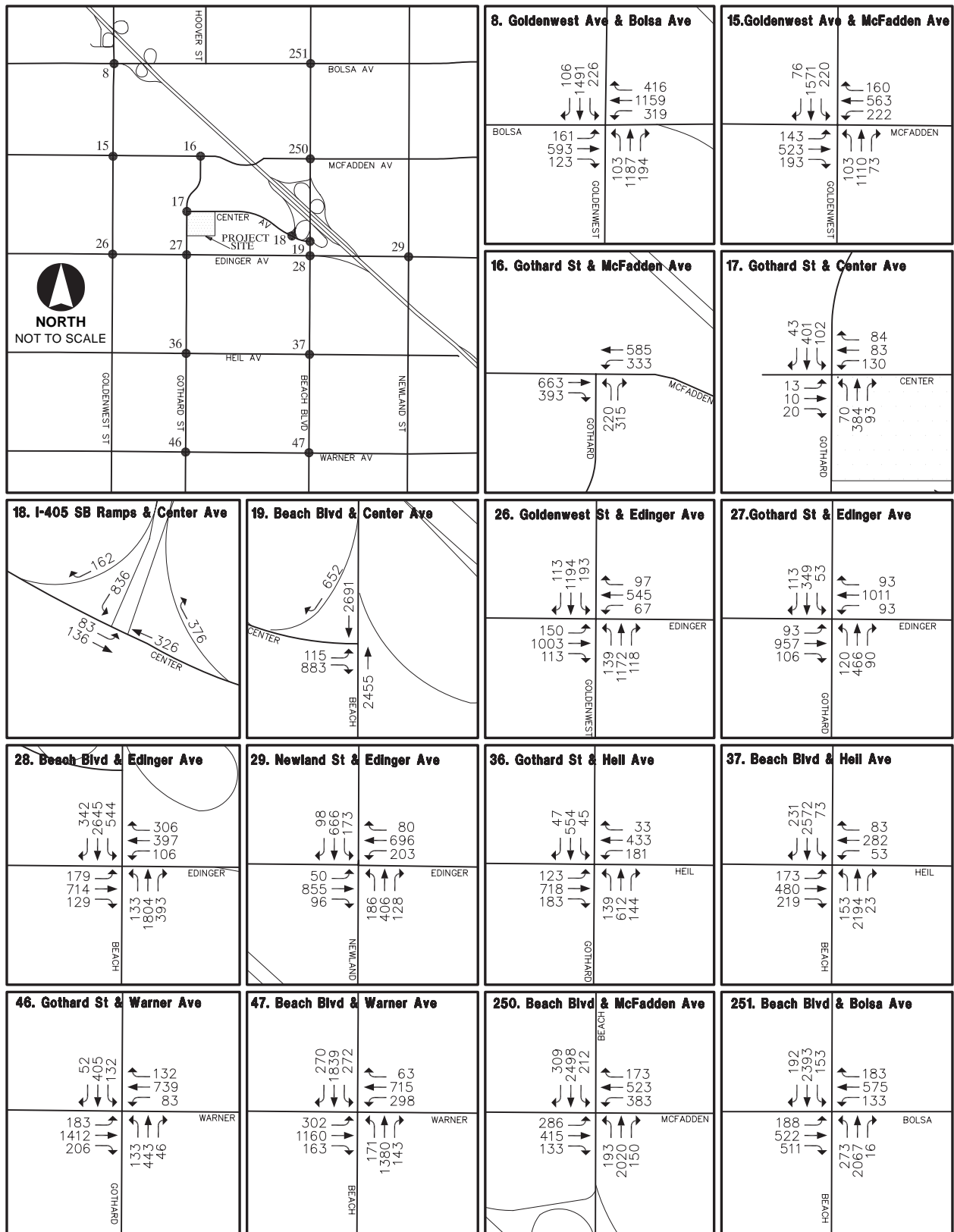
Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-11
2014 With Project Study Area ADT Volumes

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The Ripcurl



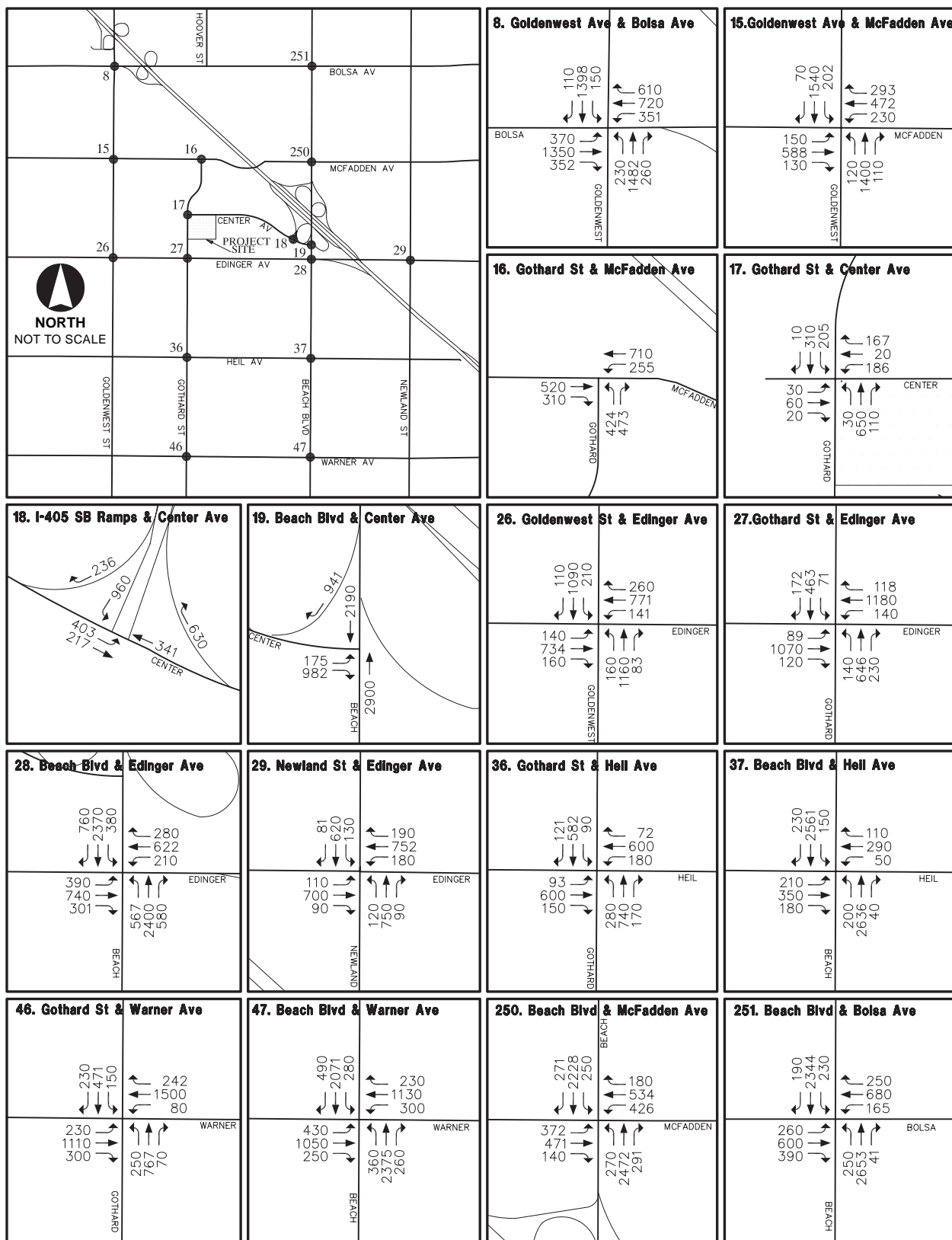


Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-12
2014 With Project AM Peak Hour Volumes

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The Ripcurl



Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-13
2014 With Project PM Peak Hour Volumes

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Table 4.13-8 Year 2014 ICU Summary

Location	Without Project				With Project			
	AM		PM		AM		PM	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
Goldenwest St. at Bolsa Ave.	.74	C	.91	E	.74	C	.91	E
Goldenwest St. at McFadden Ave.	.71	C	.75	C	.71	C	.75	C
Gothard St. at McFadden Ave.	.52	A	.55	A	.53	A	.55	A
Gothard St. at Center Ave.	.30	A	.50	A	.32	A	.52	A
I-405 SB Ramps at Center Ave.	.44	A	.80	C	.45	A	.80	C
Beach Blvd. at Center Ave.	.71	C	.71	C	.71	C	.71	C
Goldenwest St. at Edinger Ave.	.63	B	.63	B	.63	B	.63	B
Gothard Ave. at Edinger Ave.	.49	A	.58	A	.49	A	.58	A
Beach Blvd at Edinger Ave.	.76	C	.92	E	.76	C	.92	E
Newland St. at Edinger Ave.	.76	C	.70	B	.76	C	.70	B
Gothard St. at Heil Ave.	.61	B	.67	B	.61	B	.67	B
Beach Blvd. at Heil Ave.	.76	D	.82	D	.76	D	.82	D
Gothard St. at Warner Ave.	.59	A	.79	C	.59	A	.80	C
Beach Blvd. at Warner Ave.	.72	C	.92	E	.72	C	.92	E
Beach Blvd. at McFadden Ave.	.80	C	.85	D	.80	C	.85	D
Beach Blvd at Bolsa Ave.	.85	D	.87	D	.85	D	.87	D

SOURCE: Source: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 4-1.

by adding the project-only volumes to the “Year 2030 Without Project” conditions, thereby reflecting the trip differences between the existing General Plan and the proposed General Plan amendment. As shown in Table 4.13-9 (Year 2030 ICU Summary), seven intersections show long-range deficiencies (ICU greater than 0.90). Of these intersections, the intersection of the I-405 southbound ramps at Center Avenue would only experience a deficiency during the PM peak hour under 2030 conditions.

As noted previously, the segment of Gothard Street adjacent to the project site has different classifications in the CPAS&H, the 2010 CPAH, and the City’s Precise Plan of Street Alignment. The Precise Plan of Street Alignment, adopted by the City and the CPAS&H, shows the roadway as a four-lane roadway. While CPAS&H shows the street as undivided, the Precise Plan of Street Alignment identifies a divided street section. The 2010 CPAH shows a six-lane Major (six lanes divided) classification. The street is currently built as a four-lane divided roadway with bike lanes within a typical Secondary Arterial right-of-way. The four-lane Secondary Arterial ADT capacity as specified in the City’s Circulation Element is 20,000 vehicles per day. As shown in Figure 4.13-16, Gothard Street between Center Avenue and Edinger Avenue would experience 16,000 ADT in 2030, which is within the capacity of a four-lane Secondary. However, that volume is based on committed improvements only, which is the basis for this traffic analysis. It does not assume the Gothard Street at Hoover Street connection, which is part of the MPAH, CPAS&H, and 2010 CPAH.

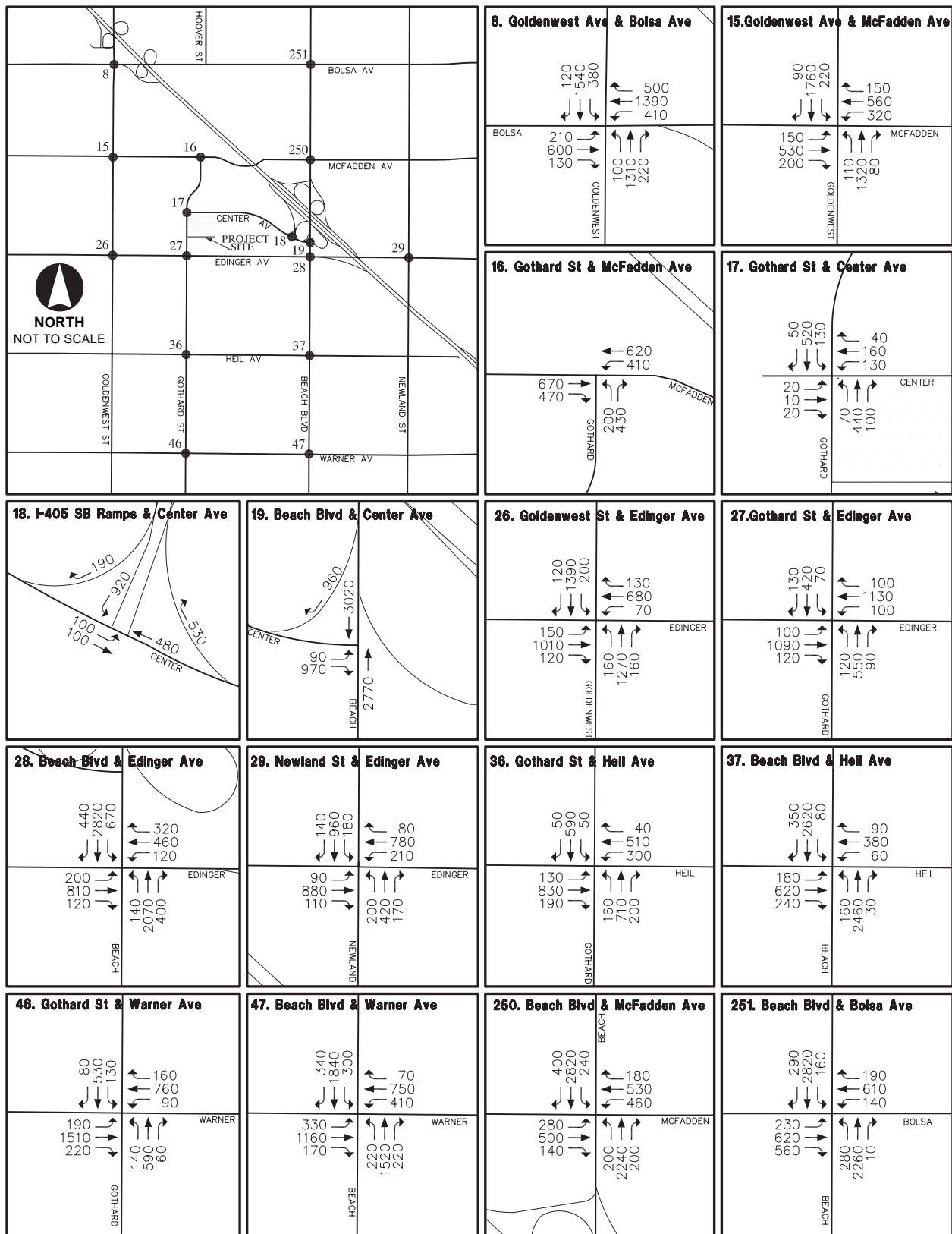
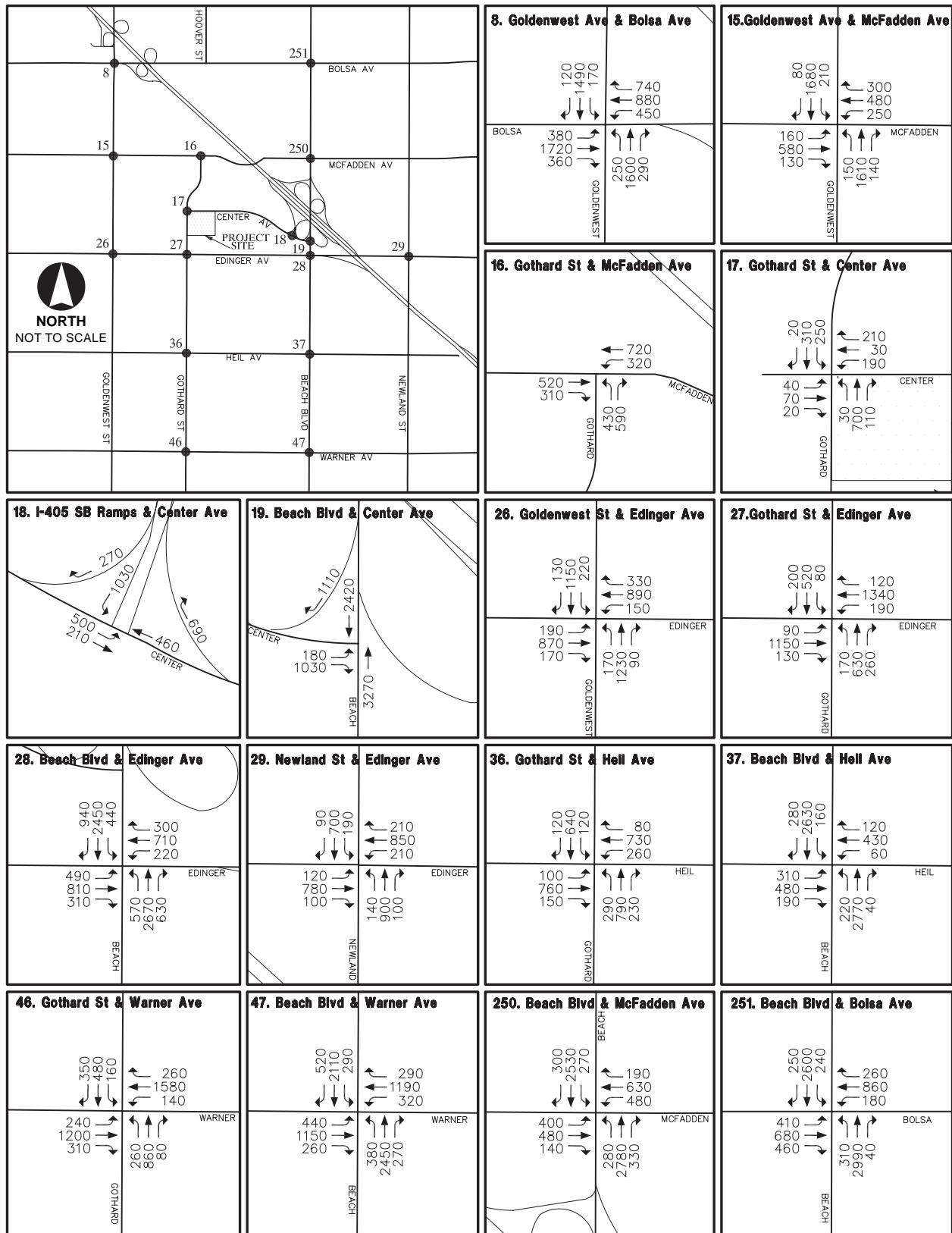


FIGURE 4.13-14
2030 Without Project AM Peak Hour Volumes

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The Ripcurl

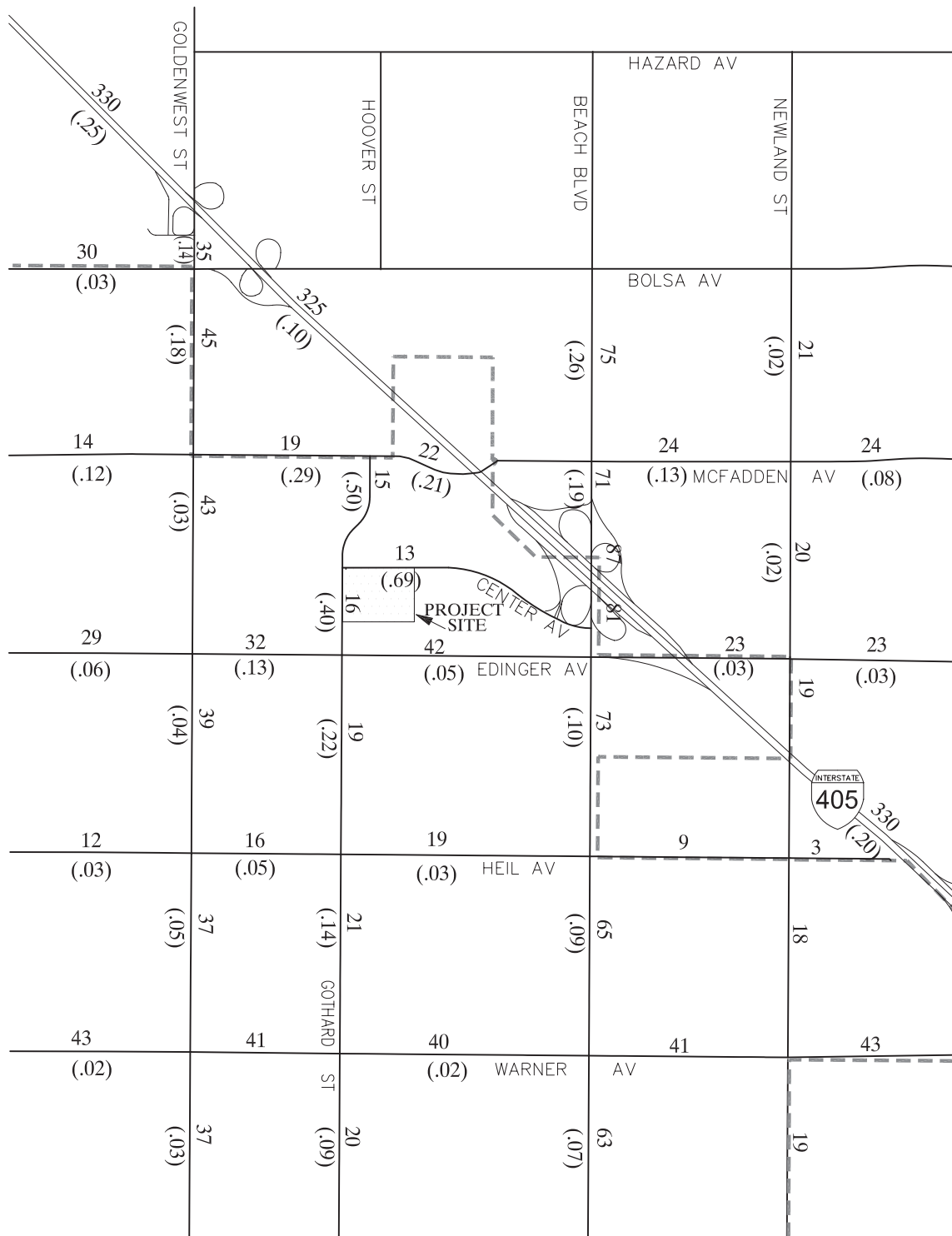


Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-15
2030 Without Project PM Peak Hour Volumes

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The Ripcurl



Legend	
XX	ADT (000s)
(Y.Y)	Project Contribution (000s)
Less than .01 not shown	



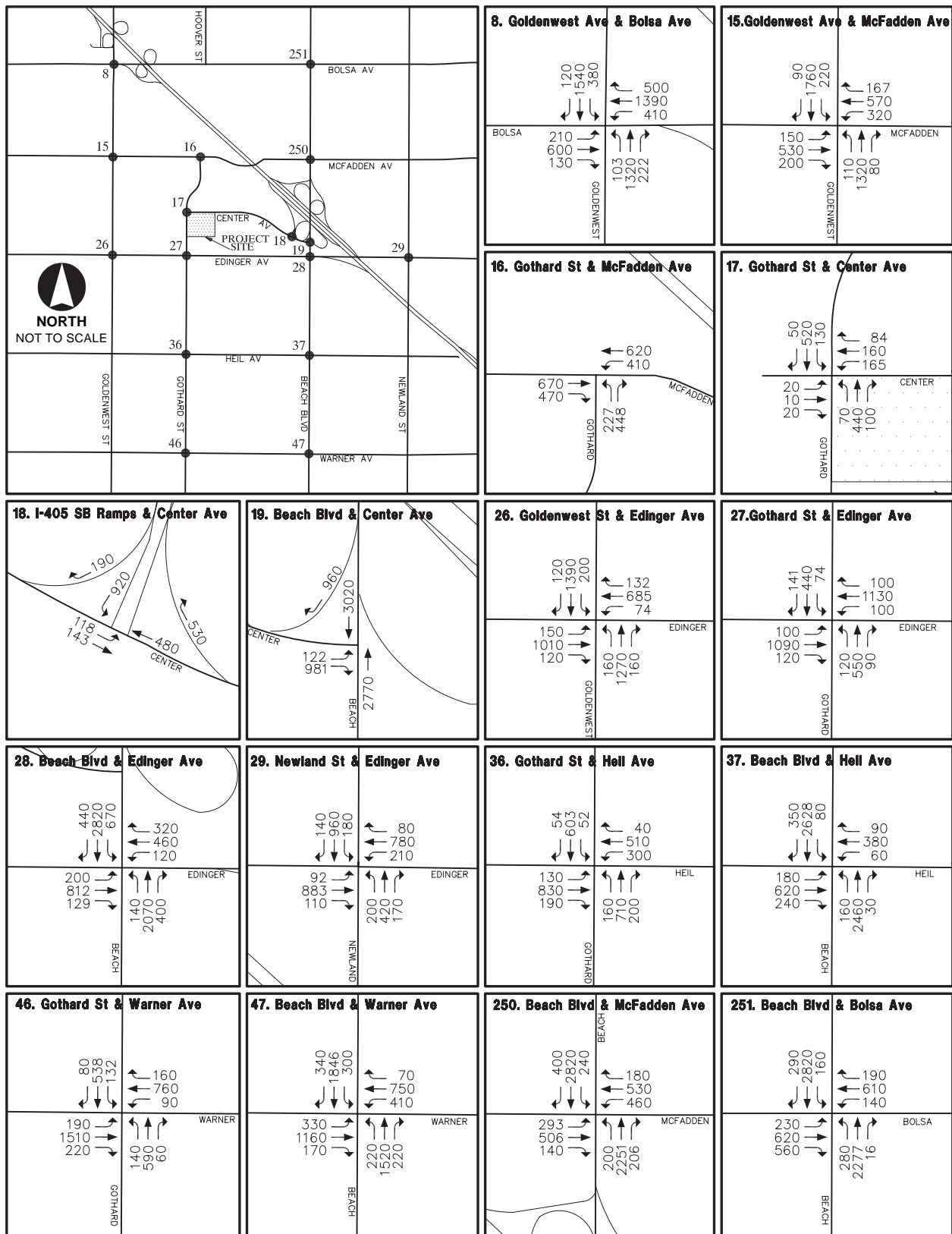
Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-16
2030 With Project Study ADT Volumes (000s)

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The Ripcurl

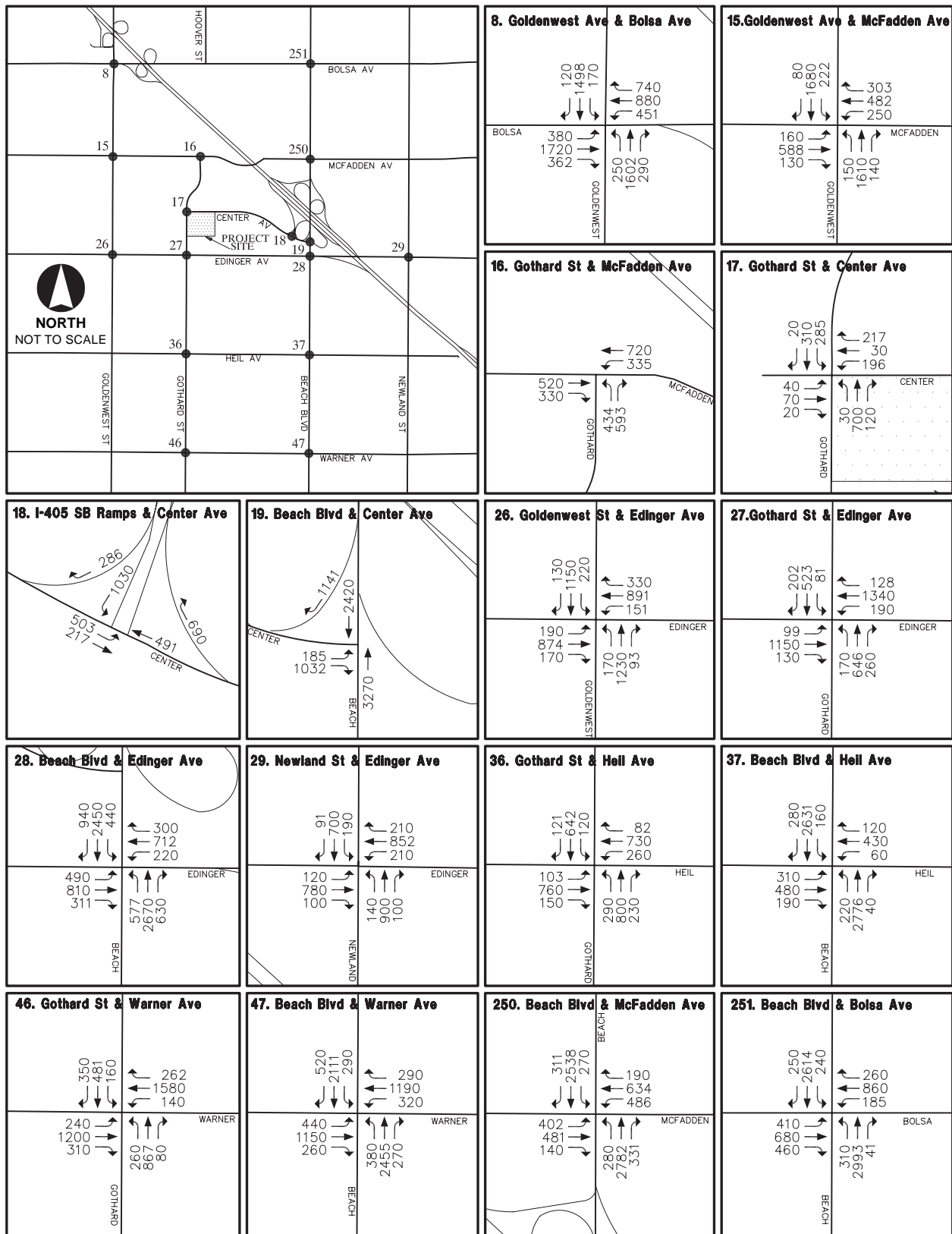




Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-17
2030 With Project AM Peak Hour Volumes

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Source: Austin-Foust Associates, Inc., 2008.

FIGURE 4.13-18
2030 With Project PM Peak Hour Volumes

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Table 4.13-9 Year 2030 ICU Summary

Location	No Project				With Project			
	AM		PM		AM		PM	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
Goldenwest St. at Bolsa Ave.	.90	D	1.02	F	.90	D	1.02	F
Goldenwest St. at McFadden Ave.	.82	D	.81	D	.82	D	.82	D
Gothard St. at McFadden Ave.	.67	B	.64	B	.67	B	.65	B
Gothard St. at Center Ave.	.36	A	.57	A	.38	A	.60	A
I-405 SB Ramps at Center Ave.	.55	A	.90	D	.56	A	.91*	E
Beach Blvd. at Center Ave.	.78	C	.77	C	.78	C	.77	C
Goldenwest St. at Edinger Ave.	.66	B	.70	B	.66	B	.70	B
Gothard Ave. at Edinger Ave.	.55	A	.64	B	.55	A	.65	B
Beach Blvd at Edinger Ave.	.86	D	1.05	F	.86	D	1.05	F
Newland St. at Edinger Ave.	.87	D	.80	C	.87	D	.80	C
Gothard St. at Heil Ave.	.73	C	.78	C	.74	C	.78	C
Beach Blvd. at Heil Ave.	.83	D	.95	E	.83	D	.95	E
Gothard St. at Warner Ave.	.65	B	.84	D	.65	B	.85	D
Beach Blvd. at Warner Ave.	.78	C	.96	E	.78	C	.96	E
Beach Blvd. at McFadden Ave.	.91	E	.95	E	.91	E	.95	E
Beach Blvd at Bolsa Ave.	.96	E	1.06	F	.96	E	1.06	F

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 4-2.

* Project Impact

Further evaluation was thereby made of 2030 volumes with the Gothard Street at Hoover Street connection. The volume on Gothard Street between Center Avenue and Edinger Avenue would be 22,000 ADT with the Gothard Street at Hoover Street connection, which would exceed the capacity of a Secondary Highway. However, this street segment, in its current condition, would qualify as a Primary Arterial, which has a design capacity of 30,000 ADT. Therefore, the existing roadway section with four lanes and a median would be considered adequate to serve the future demand, and the roadway could be reclassified from a Major Arterial (per the 2010 CPAH) to a Primary Arterial.

The Precise Plan of Street Alignment requires an additional dedication of 10 feet, with 5 feet being dedicated from both the east and west side abutting properties. This dedication would allow for future restriping of the roadway to provide standard lane widths. The additional lane widths would help to facilitate safe traffic movement, accommodate larger vehicles more easily and reduce motor vehicle encroachment or crowding of the bicycle lanes.

■ Freeway Ramp Volumes

A summary of the 2014 and 2030 peak hour volumes and volume/capacity (V/C) ratios for freeway ramps that would be affected by the proposed project are summarized on Table 4.13-10 (Future Freeway Ramp V/C Summary). Included in the table are the project contributions to the ramp V/C ratios. The

Table 4.13-10 Future Freeway Ramp V/C Summary

Location	Capacity	AM Peak Hour				PM Peak Hour			
		Total Volume	Total V/C	Project Volume	Project V/C*	Total Volume	Total V/C	Project Volume	Project V/C *
Year 2014									
I-405/Beach Blvd NB loop on-ramp (from NB Beach Blvd)	900	1,315	1.46	16	.02	1,582	1.76	2	Less than.01
I-405/Beach Blvd NB loop off-ramp (to SB Beach Blvd)	1,500	780	.65	0	Less than.01	1,022	.85	17	.01
I-405/Beach Blvd SB on-ramp at Center Ave	1,800	463	.26	18	.01	1,047	.58	3	Less than.01
I-405/Beach Blvd SB off-ramp at Center Ave	1,500	1,016	.68	0	Less than.01	1,228	.82	16	.01
I-405/Edinger Ave SB direct on-ramp	1,080	692	.64	5	Less than.01	718	.66	1	Less than.01
Year 2030									
I-405/Beach Blvd NB loop on-ramp (from NB Beach Blvd)	900	1,427	1.59	16	.02	1,690	1.88	2	Less than.01
I-405/Beach Blvd NB loop off-ramp (to SB Beach Blvd)	1,200	856	.71	0	Less than.01	1,072	.89	17	.01
I-405/Beach Blvd SB on-ramp at Center Ave	1,800	632	.35	18	.01	1,187	.66	3	Less than.01
I-405/Beach Blvd SB off-ramp at Center Ave	1,500	1,114	.74	0	Less than.01	1,298	.87	16	.01
I-405/Edinger Ave SB direct on-ramp	1,080	882	.82	5	Less than.01	771	.71	1	Less than.01

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Table 4-3.

* Project contribution to the total V/C ratio.

I-405 northbound loop ramp from Beach Boulevard is deficient in both the AM and PM peak hours. The project has a significant contribution to this deficiency (more than .01).

■ Caltrans Intersections

A LOS analysis was also performed for 2014 and 2030 conditions for the seven Caltrans intersections located in the study area using HCM methodology. The results are summarized in Table 4.13-11 (LOS Summary for Caltrans Intersections). In general, the results give similar or better LOS values compared to those derived using ICU values, with the exception of the intersection of Beach Boulevard and Edinger Avenue during the AM peak hour due to eastbound and northbound lane utilization being less than optimum. The eastbound traffic is concentrated in the right lane in preparation for accessing the I-405 southbound freeway ramp. The northbound traffic merges from four lanes to three through lanes just prior to the intersection (the fourth lane becomes a right turn lane). This merge plus local driveway traffic weaving against traffic in the right-turn lane causes flow rates to deteriorate such that queuing occurs at peak times.

Table 4.13-11 LOS Summary for Caltrans Intersections

Location	2014 With Project				2030 With Project			
	AM		PM		AM		PM	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Intersection Capacity Utilization (ICU)								
I-405 SB Ramps at Center Ave.	29.1	C	36.4	D	28.2	C	43.8	D
Beach Blvd. at Center Ave.	15.8	B	27.6	C	16.5	B	30.0	C
Beach Blvd. at Edinger Ave.	57.4	E	65.3	E	70.9	E	73.6	E
Beach Blvd. at Heil Ave.	16.6	B	17.4	B	21.8	C	36.6	D
Beach Blvd. at Warner Ave.	35.1	D	52.5	D	39.0	D	62.7	E
Beach Blvd. at McFadden Ave.	28.4	C	34.7	C	38.4	D	50.7	D
Beach Blvd at Bolsa Ave.	36.3	D	38.6	D	54.0	D	99.3	F

SOURCE: Source: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*, July 2008, Table 4-4.

■ Thresholds of Significance

The following thresholds of significance are based on Appendix G of the 2008 CEQA Guidelines. For the purposes of this EIR, implementation of the proposed project may result in a potentially significant impact if the proposed project would cause either of the following results:

- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (e.g., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)
- Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways

- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses
- Result in inadequate emergency access
- Result in inadequate parking capacity
- Conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)

As stated previously and for the purposes of this analysis, an acceptable level of service (LOS) is LOS D as defined by City of Huntington Beach Traffic Study Guidelines (1996). Therefore, any intersection operating at LOS E or F is considered deficient/unsatisfactory. In addition, an intersection is also considered impacted if the LOS is E or F and the ICU value changes by 0.01 or more.

■ Effects Not Found to Be Significant

Threshold	Would the proposed project result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks?
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The project site is not located within 2 miles of a public or private airstrip and does not propose any structures of substantial height to interfere with existing airspace or flight patterns. *No impact* would occur, and no further analysis of this issue is required in the EIR.

■ Impacts and Mitigation

Threshold	Would the proposed project cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (e.g., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
-----------	---

Impact 4.13-1 Under Year 2014 Conditions, operation of the proposed project would cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system.

As shown in Table 4.13-7, the proposed project is projected to generate a total of approximately 2,640 average trip-ends per day. In the AM peak hour the project is projected to generate approximately 204 vehicles per hour, while PM peak hour trip generation is estimated at approximately 246 vehicles per hour. This is a net trip generation increase of 1,666 average trip-ends per day.

Year 2014 Without Project traffic volumes were derived by interpolating between existing and 2030 volumes. These volumes generally account for ambient growth and related projects during this time

period. The 2014 analysis also provides the five to seven year time frame required for the GMP and CMP purposes.

Operation of the proposed project under Year 2014 With Project conditions would not result in an increase in traffic beyond existing conditions. A project impact is defined as a change in ICU of 0.01 or greater, where deficient traffic operations are projected to occur (i.e., LOS E or F). As indicated in Table 4.13-8 (Year 2014 Level of Service Summary) all intersections would operate at LOS D or above, with the exception of three intersections operating with deficiencies during the PM peak hours. The intersections of Goldenwest Street at Bolsa Avenue, Beach Boulevard at Edinger Avenue, and Beach Boulevard at Warner Avenue, would operate during the PM peak hour at LOS E.

For the intersections at LOS E, a determination was made as to whether the project contribution amounted to one percent or more in accordance with the performance criteria for significant project impacts. This analysis was carried out by summing the project traffic ICU contribution to each critical movement in the ICU calculation, and the results are as follows (Table 4.13-12 [2014 ICU Contribution]):

Table 4.13-12 2014 ICU Contribution		
<i>Location</i>	<i>AM/PM</i>	<i>Project ICU</i>
8. Goldenwest & Bolsa	PM	0.07 percent
28. Beach & Edinger	AM	0.00 percent
28. Beach & Edinger	PM	0.04 percent
47. Beach & Warner	PM	0.07 percent
SOURCE: Austin-Foust, Inc., <i>City of Huntington Beach The Ripcurl Traffic Analysis</i> . July 2008. Page 4-1.		

Project contribution to the deficient intersections did not amount to one percent or more. Therefore, the proposed project would not substantially impact any of these locations.

Additionally, two of the deficient intersections; Beach Boulevard at Edinger Avenue and Beach Boulevard at Warner Avenue, are CMP Intersections. Performance standards for CMP intersections is LOS E or greater (ICU not to exceed 1.0), therefore the two CMP intersections with LOS E during PM peak hours are operating at acceptable CMP standards. Although LOS E is acceptable for CMP purposes, the City performance standard of LOS D is typically used in the traffic analysis. The intersection of Goldenwest Street at Bolsa Avenue has been included in the City's Infrastructure and Communities Service Chapter of the General Plan as an intersection operating at LOS D with current conditions, and would undergo required critical intersection improvements for build-out year 2010 conditions. These improvements have been included for 2014 conditions analysis in the traffic study.

The anticipated deficiencies at the above-mentioned intersections by City performance standards would occur with or without the proposed project and would operate at LOS E during the PM peak hours. As shown in Table 4.13-10, in the Year 2014, the I-405 northbound loop ramp from Beach Boulevard is deficient in both the AM and PM peak hours. The project has a significant contribution to this deficiency

(more than .01). Since traffic would be added to an existing deficiency (LOS E), impacts are considered *significant and unavoidable*.

Impact 4.13-2 **Under Year 2030 Conditions, operation of the proposed project would cause an increase in traffic, which is substantial in relation to the forecasted traffic load and capacity of the street system.**

Intersection Analysis

Year 2030 volumes used for this analysis were derived using the Huntington Beach Traffic Model (HBTM). Year 2030 conditions of the proposed project include buildout of the City's General Plan and regional growth projections from OCTA. Existing land uses are assumed, as they represent existing General Plan zoning. As summarized on Table 4.13-9, the following seven intersections show long-range deficiencies operating at LOS E or F, one of which has a significant project impact:

- Goldenwest Street at Bolsa Avenue (LOS F, no-project/with project)
- I-405 SB Ramps at Center Avenue (LOS D to LOS F)
- Beach Boulevard at Edinger Avenue (LOS F, no-project/with project)
- Beach Boulevard at Heil Avenue (LOS E, no-project/with project)
- Beach Boulevard at Warner Avenue (LOS E, no-project/with project)
- Beach Boulevard at McFadden Avenue (LOS E, no-project/with project)
- Beach Boulevard at Bolsa Avenue (LOS F, no-project/with project)

For those intersections operating at LOS "E" or worse, a determination was made as to whether the project contribution amounted to 1 percent or more. This analysis was carried out by summing the project traffic ICU contribution to each critical movement in the ICU calculation, and the results are as follows on Table 4.13-13 (ICU Contribution [2030]):

Table 4.13-13 ICU Contribution (2030)		
<i>Location</i>	<i>AM/PM</i>	<i>Project ICU</i>
8. Goldenwest & Bolsa	PM	0.07 percent
18. I-405 Ramps & Center	PM	1.09 percent
28. Beach & Edinger	AM	0.00 percent
28. Beach & Edinger	PM	0.04 percent
37. Beach & Heil	AM	0.12 percent
37. Beach & Heil	PM	0.01 percent
47. Beach & Warner	PM	0.07 percent
250. Beach & McFadden	AM	0.18 percent
250. Beach & McFadden	PM	0.21 percent
251. Beach & Bolsa	AM	0.00 percent
251. Beach & Bolsa	PM	0.04 percent
SOURCE: Austin-Foust, Inc., <i>City of Huntington Beach The Ripcurl Traffic Analysis</i> . July 2008. Page 4-8.		

As indicated on Table 4.13-13, the project makes a contribution of one percent or more at the intersection of I-405 ramps at Center Avenue. No other intersection had a project contribution of one percent or more.

The proposed project has a long-range significant impact at the intersection of the I-405 southbound ramps at Center Avenue during the PM peak hour (based on ICU values). The intersection would operate at LOS D (ICU .90) under no-project conditions; however, with implementation of the proposed project, the intersection would operate at LOS E (ICU .91) during the PM peak hour. The intersection is a candidate for future improvements as part of the I-405 corridor improvements, but at this time no future geometrics have been identified for the intersection, and no timetable has been established regarding when these improvements would be implemented. Implementation of mitigation measure **MM4.13-1**, would improve conditions significantly at the intersection of the I-405 southbound ramps at Center Avenue, resulting in a PM Peak Hour LOS of C (ICU .79).

MM4.13-1 *At the intersection of I-405 Southbound Ramp at Center Avenue, signal operation shall be changed to provide right turn overlap for westbound right turns (i.e., onto the I-405 southbound on-ramp). This shall include necessary modifications to the traffic signal equipment. If required by the City, the project Applicant shall bond the improvement of the I-405 Southbound Ramp at Center Avenue, so the City may use the payment to either make the improvement at some appropriate time or contribute to the ultimate improvement of this intersection.*

This is a Caltrans intersection and Caltrans approval would be required for implementation of the suggested mitigation measure. Furthermore, it is a long-range improvement, and it may not be needed in the short-range 2014 timeframe. The potential exists that mitigation measure **MM4.13-1** may be superseded by the I-405 improvement project.

In addition, the proposed project's impact to the I-405 Southbound Ramp at Center Avenue intersection occurs when General Plan land uses are the basis for traffic forecasts in the study area. A General Plan Amendment (GPA) is currently being processed for The Village at Bella Terra Project, which would reduce the PM peak hour trip generation. Approval of the GPA would result in future 2030 background conditions such that the impacted intersection would no longer be impacted by the proposed project.

For the northbound I-405 on-ramp deficiency, the necessary future improvement is to widen to two lanes. The Project Study Report/Project Development Assistance (PSR/PDA) currently nearing completion by OCTA includes such a recommendation. Since the timing of that improvement is unknown, the project would have a significant contribution to a short-term unmitigated cumulative impact.

Regional Freeway System Analysis

In addition to the surrounding street system in the study area, a freeway system analysis was also performed for The Ripcurl project. The freeway impact criteria typically used in Orange County for projects such as this is the CMP threshold of more than three percent. This has been used in absence of any criteria formally specified by Caltrans for State Highway facilities. Project traffic on the adjacent I-405 Freeway is summarized in Table 4.13-14 (Project Traffic on I-405 Freeway).

Table 4.13-14 Project Traffic on I-405 Freeway				
<i>Location</i>	<i>Direction</i>	<i>Total Volume</i>	<i>Project</i>	<i>(%)</i>
North of Goldenwest	AM NB	11,260	21	.19
North of Goldenwest	PM SB	11,430	22	.19
North of Beach	AM NB	11,620	16	.14
North of Beach	PM SB	11,770	16	.14
South of Beach	PM NB	12,940	22	.17
South of Beach	AM SB	12,740	23	.18
SOURCE: Austin-Foust, Inc., <i>City of Huntington Beach The Ripcurl Traffic Analysis</i> . July 2008. Page 5-3.				

The selected locations identified in Table 4.13-14 have the highest amount of project traffic, and as shown, do not meet the threshold of more than three percent.

At the request of Caltrans, an analysis was also conducted for the freeway weave sections which carry some project traffic, the freeway mainline sections in the vicinity of the project site, as well as the Beach Boulevard collector-distributor (CD) roads. The analysis uses 2030 forecasts, and indicates the amount of project traffic where applicable. While 2014 information is not included in this analysis, the project contribution is the same for that year, and the 2030 time frame shows worst-case conditions with regards to freeway conditions. The results are summarized in Tables 4.13-15 (2030 Level of Service—Freeway) and 4.13-16 (Beach Boulevard CD Roads).

Table 4.13-15 2030 Level of Service—Freeway								
	<i>Southbound</i>				<i>Northbound</i>			
	<i>Mainline</i>		<i>Weave Section</i>		<i>Mainline</i>		<i>Weave Section</i>	
	<i>AM</i>	<i>PM</i>	<i>AM</i>	<i>PM</i>	<i>AM</i>	<i>PM</i>	<i>AM</i>	<i>PM</i>
Between Westminster and Goldenwest Street								
	F(0)	E(.19%)	F(0)	F(.23%)	E(.19%)	F(.02%)	E(.05%)	F(.08%)
Between Goldenwest Street and Magnolia Street								
	F(0)	E(.14%)	E(0)	F(.53%)	E(.14%)	F(.02%)	E(.05%)	F(.06%)
Between Beach Boulevard and Magnolia Street								
	F(.18%)	F(.03%)	F(.37%)	F(0)	F(0)	F(.17%)	F(0)	F(.95%)
SOURCE: Austin-Foust, Inc., <i>City of Huntington Beach The Ripcurl Traffic Analysis</i> . July 2008. Page 5-4. Numbers in parenthesis show percent of project traffic.								

For the Beach Boulevard CD roads, the 2030 results are as follows:

Table 4.13-16 Beach Boulevard CD Roads

	<i>Southbound</i>		<i>Northbound</i>	
	<i>AM</i>	<i>PM</i>	<i>AM</i>	<i>PM</i>
Volume/Capacity	.46	.87	1.31	1.53
Project V/C	.01	0	.01	.01

SOURCE: Austin-Foust, Inc., City of Huntington Beach The Ripcurl Traffic Analysis. July 2008.

A V/C ratio greater than 1.00 represents a deficiency, and hence, the northbound CD road is deficient in the AM and PM and the project adds a small amount of traffic to that condition. For the freeway information presented here, there are no significance criteria other than the CMP three percent value summarized above. Hence, it can only be noted that the project contributes traffic to 2030 deficiencies on I-405. In the absence of specific significance criteria from Caltrans, the addition of traffic to a projected deficiency is considered *significant and unavoidable*.

Summary

As discussed above, implementation of The Ripcurl project would result in an increase in project-related traffic that could be substantial in relation to the forecasted traffic load and capacity of the street system in 2030. Implementation of mitigation measure **MM4.13-1** would ensure that operation of the proposed project in the long range would not result in intersections operating below the City of Huntington Beach performance standards. Although mitigation measure **MM4.13-1** would reduce long-term impacts to a less-than-significant level, the impacted intersection is owned by Caltrans, and implementation of the proposed mitigation measure at this location would be dependent on factors outside the control of both the City of Huntington Beach and the project Applicant. In addition, although there are no adopted significance criteria, it should be noted that future project traffic would contribute to projected regional freeway deficiencies in 2030. Therefore, this impact is considered *significant and unavoidable*.

Impact 4.13-3 Construction of the proposed project would not cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system.

Construction of the proposed project is anticipated to occur over approximately 24 months beginning in July 2009. Project construction is anticipated to consist of five phases: demolition, excavation and shoring, sub-grade construction, building construction and building occupancy. Demolition would involve the removal of an existing 30,000 square feet (sf) two-story office building and a 30,000 sf one-story retail building. The demolition phase would likely generate an estimated 150,000 cubic yards of material that would need to be removed from the project site.

Grading would likely produce an estimated 80,000 cubic yards of cut and 5,000 cubic yards of fill. As noted in Appendix B (Air Quality), up to 49 truck roundtrips would be necessary per day to handle the material import/export needs of the proposed project during construction activities. It should be noted that the 49 truck trips would only occur during demolition and grading activities.

Construction traffic generally occurs prior to the peak period, consistent with the typical construction work day of 7:00 A.M. to 3:00 P.M. Further, several arterial roadways in the project vicinity are designated truck routes in the City General Plan Circulation Element (Figure CE-7). Specifically, Edinger Avenue, Goldenwest Street, and Bolsa Avenue are designated truck routes and are easily accessible from the project site. Access to the I-405 freeway is available from Center Avenue to the east. McFadden Avenue to the north is considered a State Highway between Gothard Street and Goldenwest Street in the City of Huntington Beach General Plan Circulation Element. Easy access to State Freeways would eliminate truck traffic in the surrounding arterial streets. Truck trips could travel along designated truck routes north/east to I-405 or south to Pacific Coast Highway. Due to the relatively minor number of truck trips associated with construction of the proposed project and due to the temporary nature of construction activities, truck trips due to import/export activities at the project site would not be anticipated to cause a substantial increase in traffic volumes and delays in the project area. As such, construction-related traffic impacts would be *less-than-significant*. No mitigation measures are required.

Threshold	Would the proposed project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?
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Impact 4.13-4 Implementation of the proposed project would not exceed standards established by the Orange County Transportation Authority.

The Orange County Transportation Authority is designated as the Congestion Management Agency (CMA) to oversee the Orange County Congestion Management Plan (CMP). The CMP Highway System (HS) includes specific roadways, which include State Highways and Smart Streets (formerly Super Streets), and CMP arterial monitoring locations/intersections. Two CMP intersections are located in the study area: 1) Beach Boulevard at Edinger Avenue, and 2) Beach Boulevard at Warner Avenue. CMP-designated intersections have a performance standard of LOS E or better (intersection capacity utilization (ICU) not to exceed 1.00), and a project is considered to have a significant impact if it contributes .01 or more to an ICU when the performance standard is exceeded. The 2014 ICU values at the two CMP intersections in the study area are shown in Table 4.13-17 (CMP Intersection Analysis) below.

Table 4.13-17 CMP Intersection Analysis				
Intersection	Without Project		With Project	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Beach Blvd & Edinger Ave	.76	.92	.76	.92
Beach Blvd & Warner Ave	.72	.92	.72	.92

SOURCE: Austin-Foust, Inc., *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008. Page 5-5.

Neither CMP intersection shows ICU values that exceed the allowable CMP threshold of 1.00. Therefore, a *less-than-significant* impact to CMP intersections would occur.

Threshold	Would the proposed project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?
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Impact 4.13-5 Implementation of the project would not substantially increase roadway hazards.

For the purposes of this analysis, hazards are defined as changes to circulation patterns that could result in unsafe driving or pedestrian conditions. Examples include inadequate vision or stopping distance, sharp roadway curves where there is an inability to see oncoming traffic, or vehicular/pedestrian traffic conflicts. The proposed project would not substantially increase hazards due to design features or incompatible uses. The proposed project would result in a mixed-use development on the southeast corner of Center Avenue and Gothard Street on a parcel that is already developed. The proposed project would not introduce design features incompatible with current circulation patterns.

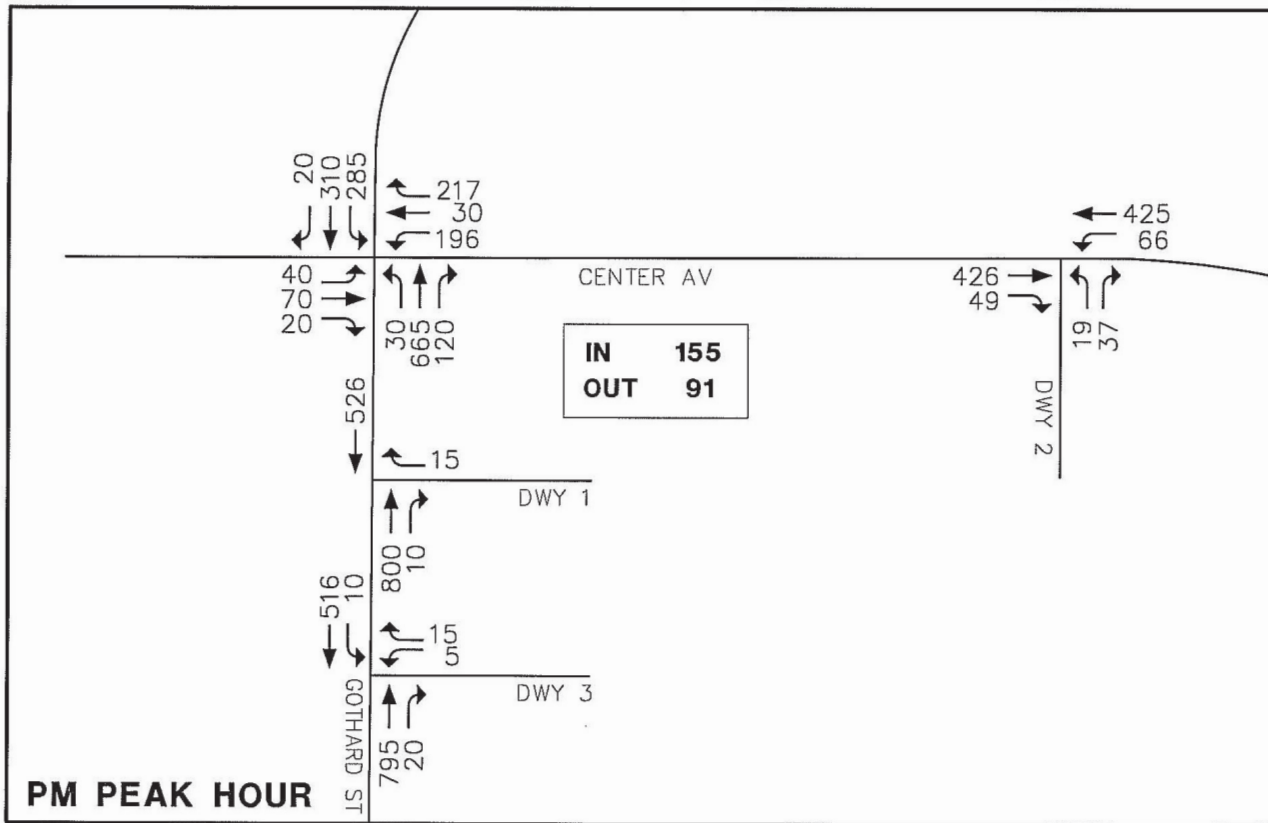
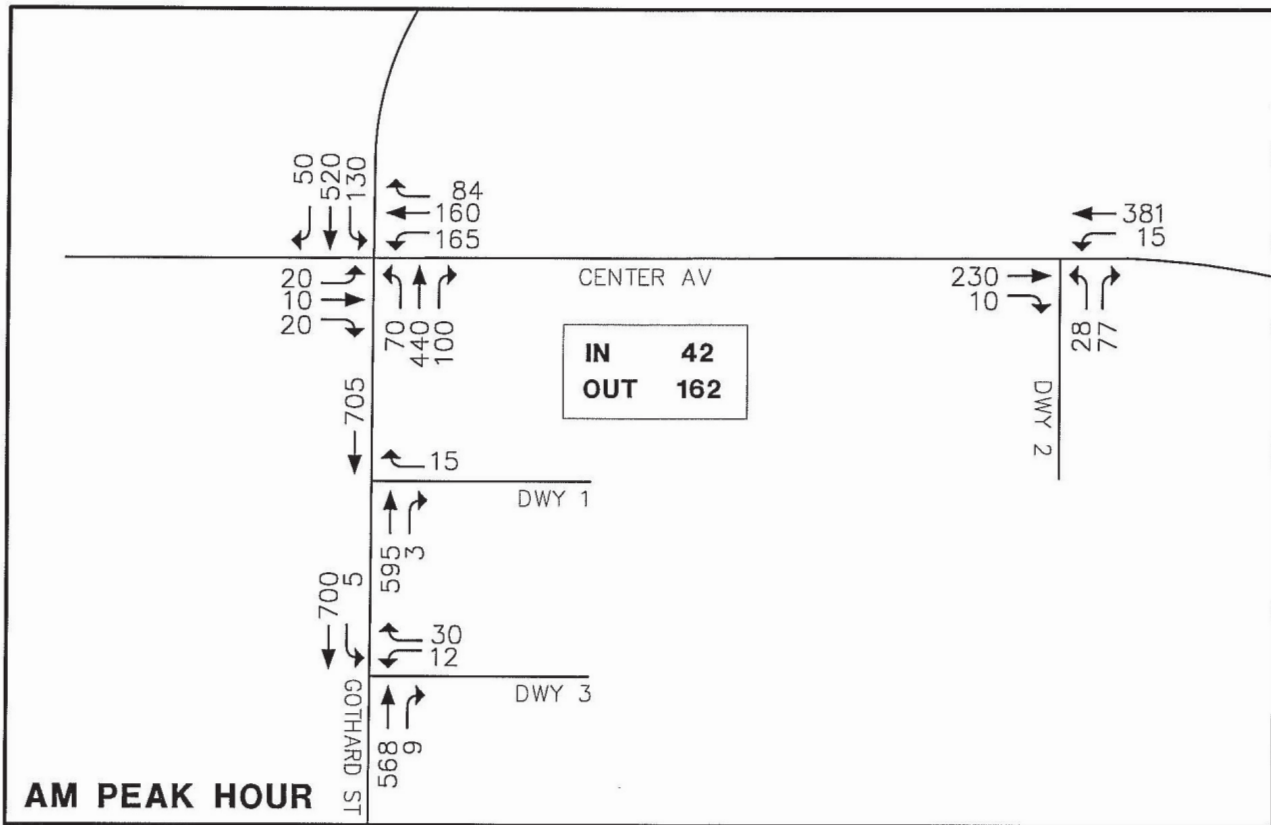
The Union Pacific Railroad right-of-way is located directly adjacent to the project site towards the east. Although the proposed project would introduce residential uses on the project site, the site design would reduce the potential for conflicts between future residents and/or visitors to the site and the adjacent railroad right-of-way. Along the eastern boundary of the project site, adjacent to the southern access driveway which will also serve as an emergency lane on Gothard Street, perimeter screening trees and a retaining wall would deter access towards the right-of-way. No direct access ways are proposed along the eastern boundary of the site. Therefore, project impacts are less-than-significant with regards to hazards resulting from design features or incompatible uses.

However, the potential for roadway hazards can also occur as an inherent result of the placement of additional access points along public roadways. New intersections require adequate sight distance and intersection traffic control in order to minimize potential hazards. In order to ensure safe construction of project intersections, the following code requirements would be required:

CR4.13-1 *On-site and off-site traffic signing and striping shall be implemented in conjunction with detailed construction plans for the project site. Restriping and signage on Gothard Street and Center Avenue would be required to control movements and provide safe access from the proposed driveways.*

CR4.13-2 *Sight distance at each project access shall be reviewed to ensure compliance with appropriate sight distance standards at the time of preparation of final grading, landscape and street improvement plans.*

The proposed project would have three access locations. Gothard Street would have two access driveways (one with right in/right out only) and a third access driveway would be located on Center Avenue. Figure 4.13-19 (Year 2030 Driveway Volumes) shows Year 2030 peak hour driveway volumes for these three access points. It is estimated that during AM peak hours 42 vehicles will enter the project site, and 162 vehicles would exit. During the PM peak hours, it is estimated that 155 vehicles will enter the project site and 91 vehicles would exit. None of the existing volumes are high enough to meet a signal warrant. All vehicles would wait for gaps in the traffic stream; this also applies to vehicles entering via left turn, at the two driveways where a left turn is permissible. Peak hour delays for exiting and entering vehicles would operate at acceptable levels based on calculated delay values using HCM



Source: Austin-Foust Associates, Inc., 2008.



FIGURE 4.13-19
Year 2030 Driveway Volumes



0D2138700

The Ripcurl

methodology. Access points to the project site would not be considered a design hazard in regards to daily traffic operation of the intersection. Implementation of city requirements would ensure impacts would be *less than significant*.

Threshold	Would implementation of the proposed project result in inadequate emergency access?
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Impact 4.13-6 The project would not result in inadequate emergency access.

Access to the project site would be provided from Gothard Street and Center Street, both of which are primary arterial streets. An emergency access lane accessed from Gothard Street and located along the southern border of the project site would provide secondary access to both components. As part of standard development procedures, plans would be submitted to the City for review and approval to ensure that all new development has adequate emergency access, including turning radius, in compliance with existing regulations. Therefore, a *less-than-significant* impact would occur after compliance with existing regulations. Therefore, project traffic will not impede emergency access to and from adjacent and surrounding roadways.

Threshold	Would the proposed project result in inadequate parking capacity?
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Impact 4.13-7 Implementation of the proposed project would not result in inadequate parking capacity.

The proposed project would provide a total of 578 parking spaces on three levels of parking (one level of parking below grade and two levels of parking above grade). Of these spaces, 528 stalls would be reserved for the residential component and 50 stalls would be reserved for the commercial component. As per Chapter 231, Off-Street Parking and Loading Provisions, of the Huntington Beach Zoning and Subdivision Ordinance, the proposed development would be required to provide one stall per one-bedroom unit, two stalls per two-bedroom units, and one stall per 200 sf of commercial uses. Based upon these criteria the proposed project would need 539 parking spaces for the residential component, and 50 spaces for the commercial component for a total of 589 parking spaces. The proposed project would meet minimum requirements for the commercial component of the proposed project, but would not meet minimum multi-family dwelling requirements by 11 parking spaces.

As discussed in more detail under Impact 4.13-8, a primary objective of the proposed project is to promote alternative methods of transportation, specifically to promote an active pedestrian environment and the use of public transit. In consideration of the project site's close proximity to the OCTA transit center, Bella Terra regional shopping center, and Golden West College, the potential exists that visitors and residents of the proposed development would not require parking spaces as they would be utilizing other methods of transportation.

Although the proposed project does not meet the minimum requirements of the City's Zoning Ordinance, demand for parking at the mixed-use development is likely to be less than suggested due to

the ideal location for use of alternative methods of transportation. As noted in Chapter 231.06 of the City's Zoning Ordinance, a reduction in the total number of required spaces would be granted if the project's various uses have divergent needs in terms of daytime versus nighttime hours or weekday versus weekend hours. As commercial uses on the project site as well as surrounding uses would be an accessory to residential uses, parking needs would be limited. Additionally, implementation of the proposed project would require amendments to the existing on-site General Plan and Zoning designation to a "Transit Center High Density Mixed Use District," which would establish new development standards. Therefore, development standards under this designation would evaluate the lessened demand for parking spaces, as a result of proximity to the transit center and mixed-used development on the project site.

Further, similar mixed-use projects in the State use reduced commercial parking provision requirements, such as 0.6 stalls per 200 sf of commercial uses.⁵⁸ Therefore, because the City's Zoning and Subdivision Ordinance does not currently designate commercial uses accessory to residential uses as separate from general commercial uses and due to the anticipated reduced demand for parking at the proposed commercial uses on-site (up to 20 spaces less), the lack of 11 parking spaces that would otherwise be provided for the proposed project under the City's Zoning Ordinance would not result in an adverse impact. This impact is considered *less than significant*, and no mitigation is required.

Threshold	Would the proposed project conflict with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?
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Impact 4.13-8 Implementation of the proposed project would not conflict with adopted policies supporting alternative transportation.

As discussed above, project implementation is anticipated to be consistent with local policies related to transportation, including the City of Huntington Beach General Plan Land Use and Transportation Elements. The proposed project would be located on the southeast corner of Center Avenue and Gothard Street. Alternative modes of transportation are accessible for both patrons of the commercial uses within the project, as well residents of the development. The OCTA transit center is located immediately north of the project site and provides a convenient location for residential trips to be made by transit. As Golden West College is situated directly west of Gothard Street, it is anticipated that students and/or faculty members would walk or use other non-private vehicle modes (i.e., bicycle and transit) to support the proposed commercial uses. The Bella Terra Regional Shopping Center is also within walking distance of the project site. The walkability of the surrounding area, as well as the easy access to transit facilities would promote the City's goal of reducing vehicle miles traveled by residents and visitors of the proposed project.

In addition, the Golden West Transportation Center is the City's largest transit hub and serves six bus lines and provides transit access throughout northern Orange County. The location of the project in such close proximity to the transportation center hub would provide residents with a convenient means of alternative transportation. In addition, although not included as part of this analysis, the project could

⁵⁸ Caltrans. *Statewide Transit-Oriented Development Study*. September 2002.

also benefit from future commuter rail service if it is established along the existing Union Pacific Railroad line.

The proposed project includes a Zoning Text Amendment (ZTA) and Zoning Map Amendment (ZMA) to establish a “Transit Center High Density Mixed Use District,” which would encourage the use of public transit for the residents and customers of the development, and the development of new transit oriented developments in the surrounding area. Additionally the project includes the following Development and Site Design objectives, which support alternative transportation:

- Create a high-quality, mixed-use development that offers unique urban living experiences while promoting an active pedestrian environment and access to restaurant and retail uses in the area.
- Maximize utilization of a uniquely located development opportunity by locating density where it is self-mitigating through resident access to campus and transit.
- Provide for the development of an underutilized site and replace the visual blight of existing strip retail with the visual excitement of new, top-rate development.
- Enliven the streetscape and provide a healthy, pedestrian-friendly complement to Golden West College through resident- and student-serving retail.

Fulfillment of the project objectives supports alternative methods of transportation. This project would support Policy CE 6.1.6., which requires new development to provide pedestrian walkways and bicycle routes between developments, schools, and public facilities. Due to project compatibility with adopted policies supporting alternative transportation, this impact would be *less than significant*. No mitigation measures are required.

4.13.4 Cumulative Impacts

The cumulative analysis considers cumulative projects identified to occur within the vicinity of the project site, in addition to General Plan build-out conditions identified to year 2030. The project-specific traffic analysis considers trips generated by cumulative projects in its development of future baseline conditions. Therefore, the cumulative impact analysis is incorporated into the analysis presented in Section 4.13.3. As identified above, impacts would not be cumulatively considerable at study intersections.

Additionally, the City of Huntington Beach is currently processing a development proposal for expanding the Bella Terra Regional Shopping Center directly adjacent to the project site (referred to as the Village at Bella Terra.) The proposal involves a General Plan Amendment (GPA) that would add both residential and commercial uses to the existing center. Two different levels of development are considered in the GPA (Option 1 and Option 2.) The Bella Terra traffic analysis shows that the total PM peak hour trips generated under both the GPA Alternatives would be less than the current General Plan. Accordingly, the long-range analysis results presented here (which assume General Plan land uses on the Bella Terra site) represent a worst-case scenario as far as future background traffic conditions are concerned.

For the intersection of the I-405 Freeway Southbound ramps and Center Avenue (where The Ripcurl project-specific impact was identified), an evaluation was made of the project impacts using the Bella Terra GPA long-range volumes as a base. The results are as follows (Table 4.13-18 [2030 ICU Comparison—PM Peak Hour]):

Table 4.13-18 2030 ICU Comparison—PM Peak Hour						
	<i>General Plan</i>	<i>General Plan + The Ripcurl</i>	<i>Bella Terra GPA 1</i>	<i>GPA 1 + The Ripcurl</i>	<i>Bella Terra GPA 2</i>	<i>GPA 2 + The Ripcurl</i>
I-405 SB & Center Ave	.90	.91	.90	.90	.90	.90
SOURCE: Austin-Foust, Inc., <i>City of Huntington Beach The Ripcurl Traffic Analysis</i> . July 2008. Page 5-4.						

As stated previously, the proposed project would result in a significant and unavoidable impact at the intersection of the I-405 Freeway Southbound ramps and Center Avenue under the current General Plan in 2030. As such, the proposed project would be considered cumulatively considerable. However, the project does not contribute to a significant cumulative impact at this location when either of the Bella Terra GPA's are considered under Year 2030 conditions. With implementation of the Bella Terra project and the proposed project, ICU value at the intersection of I-405 Southbound ramps and Center Avenue would remain at 0.91, similar to the value anticipated under General Plan buildout in 2030 without either project. This is due to the anticipated reduction in vehicle trips associated with either GPA under the proposed Bella Terra project versus the level of development currently allowed by the City's General Plan land use designations for the Bella Terra site. Therefore, if either Bella Terra GPA Option is adopted, The Ripcurl cumulative impact would be reduced to a less-than-significant level.

However approval of the Village at Bella Terra is not certain. Therefore, because the proposed project would result in a significant and unavoidable impact at the intersection of the I-405 Freeway Southbound ramps and Center Avenue under the current General Plan in 2030, proposed project would be considered cumulatively considerable. In addition, although mitigation measure **MM4.13-1** would reduce the impact at the I-405 southbound ramps at Center Avenue to a less-than-significant level for project-levels impacts, the impacted intersections are owned by Caltrans, and implementation of the proposed mitigation measures at these locations would be dependent on factors outside the control of both the City of Huntington Beach and the project Applicant. Therefore, the cumulative impact at this location would be considered ***significant and unavoidable***, regardless of implementation of the Village at Bella Terra project.

4.13.5 References

City of Huntington Beach. 1996. *General Plan Circulation Element*, May 13.

Austin-Foust Associates, Inc. *City of Huntington Beach The Ripcurl Traffic Analysis*. July 2008.

Caltrans. Statewide Transit-Oriented Development Study. September 2002.